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BOMBAY BRANCH

OF THE

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VOYAGE ROUND THE WORLD,

IN THE

YEARS 1803, 1804, 1805, & 1806,

BY ORDER OF

HIS IMPERIAL MAJESTY ALEXANDER THE FIRST,

ON BOARD THE SHIPS NADESHDA AND NEVA,

UNDER THE COMMAND OF

CAPTAIN A. J. VON KRUSENSTERN,

OF THE IMPERIAL NAVY.

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ac

IN TWO VOLUMES.

TRANSLATED FROM THE ORIGINAL GERMAN

BY RICHARD BELGRAVE HOPPNER, ESQ.

VOL. I.

Les Marins écrivent mal, mais avec assez de candeur.—DE BROSSES.

London:

Printed by C. Roworth, Bell-yard, Temple-bar;

FOR JOHN MURRAY, BOOKSELLER TO THE ADMIRALTY AND THE BOARD OF LONGITUDE, 50, ALBEMARLE-STREET.

1813.

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Native of Nukahiwa

Published June 1, 1813, by J. Murray, Albemarle Street.

TRANSLATOR'S PREFACE.

In offering to the public a translation of "A Voyage round the World, by Captain Krusenstern," the translator is not animated by any confident feelings of the success of his labours. When a part of the work first arrived in this country from Berlin, where it was reprinted from the original, it was put into his hands, rather for the purpose of his endeavouring to find a proper person to undertake the translation, than of any expectation that he should himself engage in the task. Failing, however, in this endeavour, and having seen, in the mean time, a favourable and interesting account of the work in one of those periodical publications, which, of all others, are best calculated for the general diffusion of knowledge, and one which, in its character and public estimation, ranks second to none,* he was prevailed on to attempt it himself.

The motto which Captain Krusenstern has prefixed to his book, "*Que les marins écrivent mal, &c.*" is certainly exemplified in his own instance. The characteristic feature of the work is that of accuracy, rather than elegance of description. An uncouth stile, and a cold precision of expression, must ever

* Quarterly Review, No. XII. Art. II.

preclude the author from ranking with some of our circumnavigators who, in their descriptions and narratives, have displayed a warmth of colouring, a taste and feeling, worthy of the wonderful talents which insured the successful execution of new and adventurous voyages. The translator felt, however, that any improvement which might bring it nearer to other works of a similar nature, could only be effected by a considerable alteration in the stile, and the infusion of some little warmth and sentiment into those descriptive parts which would admit of it without injury to the sense, or a departure from the truth. But such a step would have been to assume a licence which he conceived he was by no means warranted to take; and, as his aim was to produce a correct and not an amended copy, he had no alternative but to follow the original, with that precision which he conceives to be absolutely necessary in translating a work of this nature, and on which, indeed, its value so mainly depends.

In attempting this apology for the stile of the work, as far as he is himself concerned, the translator is far from wishing to detract from that merit which is unquestionably due to Captain Krusenstern. The care and precision with which he has executed his own nautical remarks and observations, and examined and compared those of his predecessors, entitle him to great praise. His unremitting attention to the preservation of the health of the crews, composed entirely of men unused to a tropical sun, the means which he employed for this purpose, and the success which attended them, are not less creditable to his judgment than to his humanity.

In the narrative of a voyage not undertaken professedly with the view of making new discoveries, our curiosity is less strongly excited than in one where discovery is the primary object. Yet the voyage of Captain Krusenstern is not deficient even in this respect. His account of Nukahiwa, and its fine race of inhabitants, is by no means uninteresting, and confirms, in most respects, that given of them by his predecessors: his naming it one of the "Washington Islands," because first discovered by the master of an American vessel, is, perhaps, objectionable, as Nukahiwa is just as much one of the group long known as the Marquezas, as Corvo is one of the Azores or Western islands. Here he met with an English sailor of the name of Roberts, who had received the king's sister in marriage, and who found himself so comfortably situated among the islanders, that Captain Krusenstern could not prevail on him to leave them.*

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* He has however since left them, as appears by the following letter, addressed to Mr. Hare, and dated at Calcutta, December 11th, 1811:

To JAMES HARE, Esq.

SIR,

I BEG leave to state to you the outlines of my narrative, viz.—In November, 1797, I sailed from London, bound round Cape Horn; stopped at Spithead till early in January, 1798, at which period and in three weeks we reached the island of St. Jago; stopped a few days, and proceeded to Rio de Janeiro, at which place we stopped about twelve or fourteen days; we then proceeded on our voyage towards Cape Horn, which we doubled some time in June, 1798.—We were near six months at the Gallapagos isles, when we took our departure along the coast of California, in company with two ships, the Butterworth and Liberty, both of London. In the latitude of 17° N. we experienced a very heavy gale at midnight; the Liberty was never seen after, the Butterworth lost her main-mast. In consequence of this unlooked-for misfortune, we made for the Marqueza isles, situated in 9° 58′ S. latitude, and about 158° W.

His short account of the Japanese is, as every thing must be which relates to that curious people, highly interesting; and his stay on the northern part of Jesso afforded him the means of collecting considerable information respecting the harmless inhabitants of this secluded part of the globe. His observations made in the Tartarian Sea, and partial survey of the coast of Saghalin, or Tchoka, are creditable to his talents, assiduity, and perseverance, as a navigator employed on making

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longitude.—Through some occurrences, I became an inhabitant at St. Christiana; here I resided near a year, when I went over to another isle, distant about three leagues; here I passed a few months in speculation, but my slender education debarred me from many useful points to society; at length I took my departure with a friend in his double canoe, bound to Nukahiwa, a distance of about thirty-five leagues. At this isle I had my different turns of fortune; my friend the king was very partial to me, and I did every thing that was just to merit his favour. I headed his warriors for four years. At length he gave me his own sister, Ena-o-ae-a-ta, to be my bride, as a small token of his esteem; I have ever since thought it a great one. At length I took my leave, in February, 1806, on board the Lucy, of London, bound to Port Jackson. In six days we arrived at Otaheita. Here I found twelve missionaries: my wife being pregnant with her second child, I stopped at this place, March 8th, 1806. I remained here about eighteen months, at which time arrived Captain Dalrymple; I went on board of him as pilot; I took his ship among the Ladrone isles, and in one month we returned to Otaheita, got our wood, water, &c. and departed for the Pheacus isles, and from thence for New Zealand, at which place we got a cargo of spars, and took our departure for Penang, at which place we arrived in March, 1808. I staid at this place twenty-three months; my employer being dead, I took my passage in February, 1810, for Bengal; we arrived March 17, 1810.

This, good Sir, is the outline of my voyages and travels, if this should answer your desire.

Sir,

I remain, yours, &c. &c.

E. ROBERTS.

new discoveries. On the whole, the translator is of opinion that the work of Captain Krusenstern will not be found, even in England, undeserving of some portion of that reputation which it seems to have gained on the continent of Europe.

It is right to observe, that it has not been thought necessary to increase the size of the present translation, by the addition of various papers on subjects of Natural History, &c. contained in the third volume, especially as it appears that Dr. Langsdorf, one of the naturalists, is about to publish a particular account of whatever occurred during the voyage, new or interesting, in his department. Nor has it been deemed of importance to wait the arrival of the plates which are meant to embellish and illustrate Captain Krusenstern's voyage. A set of them has indeed been seen by the translator, who can venture to say that, from the indifferent manner in which they are executed, and the very little information which they convey, the book has suffered no defect from the want of them.

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TO,

HIS IMPERIAL MAJESTY

ALEXANDER I.

MOST GRACIOUS EMPEROR,

THE first Voyage of the Russians round the globe, which, by the command of Your Imperial Majesty, I have had the good fortune to direct, deserves particular notice in the annals of the Naval History of Russia. Your Majesty has been graciously pleased to permit me to publish the account of this successful undertaking; and I now venture to lay my publication at the foot of your Imperial Throne. I trust, that the simple narrative of a seaman may not be found altogether undeserving the august name of the Gracious Monarch which I am allowed to place at its head: a favour which affords a new proof to me, that, from the commencement to the end of this voyage, I have had the happiness to obtain Your Imperial Majesty's approbation.

With sentiments of the highest respect, and animated by the warmest feelings of gratitude, for the numerous proofs of Your Imperial favour,

I remain,

MOST GRACIOUS EMPEROR,

Your Imperial Majesty's

Most dutiful and devoted Subject,

KRUSENSTERN.

INTRODUCTION.

General Observations on the State of Russian Commerce during the last Century—Sketch of the Russian Voyages and Discoveries in the great Northern Ocean—Voyages of Captains Behring, Tschirikoff, Spanberg, Walton, Schelting, Synd, Krenitzin, Lowascheff, Laxmann, Billings and Sarytscheff—Origin of the Russian Fur Trade—Short Account of it—Rise of the Russian American Company—Its complete Establishment and Confirmation by the Government—Original Motives for the present Voyage.

THE discovery of Kamtschatka in the year 1696, and that of the Aleutic islands in 1741, occupy no small place among the great events which have occurred in Russia since the reign of Peter the Great. Both are of importance, from their extensive, although only recent influence upon the trade of Russia, and from the turn which they have given to the commercial spirit of her inhabitants. The possession of Kamtschatka, and of the Aleutic islands, contributes, perhaps, to rouse Russia from that state of slumber in which the policy of the commercial nations of Europe has ever, and with too much success, endeavoured to lull her; nor do they witness, without uneasiness, the first attempts of the Russians to shake off the yoke of their masters, and to open a field from which, although their own property, they have hitherto derived no great advantage. The inexhaustible springs and incentives to commerce which Russia possesses, are not unknown to any one: but there are obstacles

which render it difficult that she should ever become a trading nation; obstacles which several writers have even represented as insurmountable, although they are not of that nature to warrant a doubt of the possibility of removing them. Let the monarch only express his pleasure with regard to them, and the most difficult are already overcome.

It was certainly one of the wisest measures of the immortal Peter, whose actions almost invariably bear the stamp of a deep politician, and evince the keen penetrating eye of the creator of Russia, to draw foreign merchants into that country, in order to bring her trade into a fair line of action. The character of the merchant in former times was very considerable, owing to the active trade carried on by Russia;* but it had, nevertheless, lost a great deal of its respectability at the commencement of the preceding century. The principal merchants were then almost entirely ignorant of the relations of foreign commerce, which Peter was desirous of introducing into his states, together with a marine: and they therefore stood in need of instructors, by whose means they might acquire a knowledge of the science of trade, to them so perfectly new, and without which any undertaking of consequence could not be expected to succeed. It was, moreover, necessary, in order that any prejudices which

* The Russian wholesale dealers (Gosti) formerly enjoyed several privileges which they have gradually lost: they were employed on embassies, and invited to the tables of princes; their demands were preferred to those of other creditors; they were free from almost all imposts, were not subject to have troops billeted on them, nor required to swear themselves, but might make oath through the means of their servants; and no one could judge them except the Czar, or a Bojar expressly appointed for the purpose, &c.

might exist on the part of the nobility against the character of the merchant, should be extinguished, to invite into the country, foreigners who, without being nobles themselves, might attract the attention of the emperor, and even command his esteem. In a word, it was requisite again to ennoble the merchant in the eyes of the nation; and Peter the Great began this undertaking, to which his successors have all more or less contributed. Several circumstances have delayed the complete success of this desirable object, notwithstanding the most anxious wish of the Russian sovereigns to extend the commerce of their subjects; but the merchant's character has always increased in consideration. It is reserved for the present enlightened government to put the last hand to the improvement of the people which Peter the Great set on foot: and it is now time for us to throw off the yoke imposed on our commerce by foreigners, who, having acquired wealth at the expense of our country, quit the empire in order to spend it in their own; and in this manner withdraw from the state that capital which it would preserve, if the native possessed any means by which his energy and patriotism might be animated and employed to the advantage of his country. This energy, this patriotism, they can only be inspired with, in a country which like Russia depends on the will of a single person, by its ruler; and in this the government of our present excellent monarch, who employs his power solely for the advantage of his subjects, and gives daily proofs of his humanity and zeal for the welfare and reputation of his country, is particularly to be distinguished.

For the last century the active trade of Russia has been in the hands of foreigners; and a long time must have elapsed before,

even by adopting the most efficient measures, a part of it only could have been recovered from them, if the possession of Kamtschatka, and of the adjoining islands, as well as of a large portion of the north-west coast of America, the trade with which has been entirely in the hands of the north-eastern inhabitants of Russia, did not now enable those of the west to effect this, much sooner than before appeared probable: measures which are become by much too important for the present government not to avail itself of them to the attainment of this great object.

Although I cannot suppose any of my readers ignorant of the history of the Russian voyages and discoveries in the northern ocean, nevertheless a short sketch of them may not be here very much misplaced.

As early as the year 1716, a ship sailed from Ochotzk to Kamtschatka by order of Peter the Great, and made the first attempt to institute a communication by water between the main land and this peninsula, which since that time has always been preferred to the difficult and tedious intercourse by land. By his orders the Kurile islands were likewise examined during the years 1711 and 1720; and shortly before his death, which took place in 1725, he set on foot the first Kamtschatka expedition, as it was called, to the command of which Behring was appointed. It could not escape his penetrating observation, that these distant regions would at some period prove extremely advantageous to his empire; and he therefore wished to obtain an accurate account of them. The decision, too, of the then pending question, how far America was distant from Asia,

a question the emperor had already been entreated to inquire into during his residence in Holland in 1717, and upon which the Parisian Academy of Sciences, of which he was a member, had made a representation to him, occupied him constantly. Behring, accompanied by Lieutenants Tschirikoff and Spanberg, made two voyages: the first, in 1728, to the northward as far as Cape Serdze Kamen, in latitude 67° 18′ N. which he incorrectly held to be the extreme point of Asia; and the second in the following year to the eastward in search of America, which however he did not find. The object of these two voyages was therefore frustrated. The Empress Anna hereupon ordered a similar voyage to be undertaken, and the discovery of the Aleutic islands and of the coast of America rendered this of importance to the future commerce of Russia; although much greater results might have been expected, the preparations for it lasting nine years, and having occasioned an enormous expense, besides that by the conveyance of the materials for the construction of the ships to Ochotzk, many entire villages of Siberia were completely annihilated. Behring was again selected as chief of this expedition, and Tschirikoff commanded the other ship. In the year 1741 these two navigators commenced their voyage. Stetter accompanied Behring as naturalist, and Delisle de la Croyere went with Tschirikoff as astronomer to the expedition. The latter discovered the coast of America in the 56th degree of latitude; Behring, who was separated from his companion in a storm, saw it in latitude 58° 28′.* On his voyage back to Kamtschatka

* Müller's Collection of Russian Voyages, 3d vol. page 198.

Behring's ship was driven on an island, which now bears his name, and where he shortly afterwards died.*

In the years 1738 and 1739, Lieutenants Spanberg, Walton, and Schelting sailed to the Kurile islands and to Japan. During their second voyage in 1739, they were separated in a gale: they touched upon different parts of the east coast of Japan; Spanberg and Schelting in latitude 38° 41′ and 38° 25′; and Walton, who fell in with the land in 38° 17′, kept along it as far as 38° 48′†. Spanberg examined the Kuriles as far as Jesso or Matmay, and on his return published a chart of them containing twenty-two islands, of which, owing to the incorrectness of the draught, few can now be recognized. In 1741 and 1742, Spanberg and Schelting again sailed in order to determine whether Japan and Kamtschatka are, or not, under the same meridian; for it was doubted whether Spanberg and Walton had really seen the coast of Japan, and had not confounded it with that of Corea; but nothing was effected in this second voyage. Spanberg's ship sprung a leak, and he immediately returned: his companion Schelting explored the mouth of the Amur; but afterwards, in ascertaining the difference of longitude between Kamtschatka and Japan, which Spanberg and Walton had laid down, it was proved, that in their first voyage they really did reach the coast of Japan. Since Spanberg's time, until the Japanese Kodojee was sent

* I do not here allude to the voyages, which, although they formed part of the plan of this expedition, were not immediately connected with the voyages of discovery in the great northern ocean.

† Müller's Collection of Russian Voyages. Third volume, pages 163—167.

away, and conducted by the younger Laxmann, in the year 1792, to his own country, by orders of the Empress Catharine, the Kurile islands and Jesso have been repeatedly visited by Russian merchants, but without any positive advantage accruing from their visits either in a scientific or commercial point of view.

In the years 1743 and 1744, the coast from Ochotzk to Kamtschatka, was examined by Lieutenant Chmiteffskoy.*

In 1764, Lieutenant Synd, of the Royal Navy, was sent by order of the Empress Catharine from Ochotzk, on a voyage of discovery between Asia and America, and returned in 1768. In this voyage he discovered the island called Matwey,† and the great island of St. Laurent, called by Cook Clerke's island.‡

In 1768, Captain Krenitzin and Lieutenant Lowascheff sailed from Nischney Kamtschatsk, in order to examine the Aleutic islands, and to determine their astronomical situation.

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* Introduction to Sarytcheff's voyage.

† Cook's Cape Upright, in latitude 60° 17′ and 187° 30′ E., is probably in the island of Matwey, called by Cook Gore island.

‡ In a chart of Synd's Voyage, in Coxe's well-known work upon the Russian Discoveries, there is, between the 61st and 64th degrees, well to the south of Behring's straits, a group of islands said to have been discovered by Synd, whose course is laid down as passing between them. Cook's and Sarytcheff's voyages prove, however, that this group does not exist, and is of the same origin as the islands of St. Macarius, St. Stephen, St. Theodore, and St. Abraham, which have long since been omitted from the charts. Probably these islands are that of St. Laurent, which Synd mistook for a group instead of being but one island.

They both executed this commission very carefully in 1768 and 1769: but Krenitzin, on his return, had the misfortune to be drowned in Kamtschatka.

In 1785, a fresh expedition was set on foot, the command of which was entrusted to Billings, an Englishman. Of this voyage, which was completed in 1796, two accounts have lately appeared in print; the first, written in English, by Captain Billings's secretary, Sauer; the other, compiled by the present Vice-admiral Sarytscheff, in Russian, contains all that is important, and the nautical details of the expedition. As these voyages are in every body's hands, I shall not express my opinion upon their merits: but it appears to me, that the expectations which the voyage gave rise to, have not been at all fulfilled, and are not in the least equal to the enormous exertions and expenses it occasioned to the government during the ten years it lasted. Among the officers of the Russian navy, there were many who would have conducted the expedition much more creditably than the Englishman: every thing useful that was effected by it, was done by Captain Sarytscheff, who alone possessed any extraordinary scientific knowledge of his profession; and without his exertions, which were employed principally in ascertaining the astronomical situation of the different places, in surveying and describing the islands, coasts, harbours, &c. Russia, in all probability, would not have had a single chart by the leader of the expedition.

The same effect which Captain Cook's third voyage produced upon the speculative and enterprising spirit of the English merchants, who, soon after the return of his ship, began

to visit the north-west coast of America for the valuable seal skins, (which his stay among the Chinese at Macao had taught them to appreciate,) had been occasioned among the Russian merchants forty years sooner, by the discovery of the Aleutic islands and the north-west coast of America, by Captains Behring and Tschirikoff. Since that period, the Russian merchants made several voyages thither, at their own expense, in order to procure all kinds of furs, but chiefly the seal skins, which they sold to great advantage upon the Chinese frontier. In this manner they opened a trade, which proved so highly advantageous, notwithstanding the little encouragement afforded them, and the almost incredible difficulties, calculated to deter every one from a continuance in this commerce who had not the same enterprising spirit and moderate expectations as the Russians, that the number of ships employed in it increased from year to year. I do not enter into the detail of these voyages, as an account of them is given in Pallas's New Northern Supplement, and Coxe's Description of the Russian Discoveries; but shall content myself with observing, that they have been continued without interruption since the year 1745, and always very much to the advantage of those who undertook them. Every species of fur, but particularly the seal skin, has become an article of indispensable necessity to the delicate Chinese. With the least change of air, they immediately alter their dress; and even at Canton, which is under the tropic, they wear furs in the winter. The trade carried on by the Russian merchants might have been attended with infinitely greater advantages, had it been supported by the government, as they might then have built better ships, and have entrusted them to more able commanders.

As they were entirely deficient in the latter, they generally lost one ship in three every season: notwithstanding which, the number of ships sent to procure furs increased to such a degree, that, although other nations, for instance the English, Americans, and even Spaniards, began to take a share in this lucrative commerce, there were frequently twenty ships fitted out in the Russian ports in the course of the year. This extraordinary increase was attended with many evil consequences; and it is very probable, that had it not been for the merchant Schelikoff, who may be considered as the founder of the present American Company, this trade must have fallen to the ground, owing to the bad measures pursued by those who participated in it. Every vessel destined for it belonged to a separate proprietor, who spared neither the natives of the Aleutic islands, who were invariably ill-treated, nor the animals themselves which they hunted; in short, without any consideration for the future, they merely hastened to collect a cargo, and to return to Ochotzk. The valuable seals, and other wild beasts, whose skins were so profitable to these insatiable hunters, would soon have been completely extirpated had this general chace been continued: and the trade would have then ceased of itself, or at least have been suspended for some years. Convinced of the extreme necessity of putting a stop to this destructive plan of proceeding, Schelikoff took considerable pains to form the different partakers of this trade into a company, in order, afterwards, to conduct it with prudence and precaution, upon some plan that might prove advantageous to all parties. All his efforts to effect this were, for a long time, in vain, until, in 1785, he succeeded in joining company with the Golikoffs. They advanced their capital, fitted out several ships, which the enter-

prising Schelikoff commanded in person; formed an establishment on the island of Kodiak, which is even now the chief factory of the American Company, for which it is particularly well calculated, by its central situation between the Aleutic islands and Kamtschatka to the west, and the coast of America to the east; and during several years they continued this lucrative trade in conjunction, by which they acquired considerable wealth.

The success of this connection induced several merchants to unite like Schelikoff and the Golikoffs, and in this manner was laid the ground-work of the present American Company; a name which it had assumed even with the union of their two firms. The trade was now conducted by the former for the general benefit of the whole, and factories, protected by forts, were established on almost all the Aleutic islands. The Company's chief establishment was at Irkutsk, a town which, by its situation, facilitates the connection of east and western Russia: but although it had now increased to a considerable extent, the company had not received the smallest proof either of the attention or support of the government, and its trade appeared to be rather tolerated than confirmed; nor did its existence rest on any firm basis. As the irregular manner in which it was carried on, and the unjust and often cruel conduct of the Russian merchants to the natives of the American islands, (a circumstance now very generally known,) had drawn great and powerful enemies upon them; the Emperor Paul, who then occupied the throne, determined to put a stop to the Company and the trade at the same time: and this determination would have infallibly been carried into effect but for the interference of M. Von Resanoff, who was subsequently appointed ambas-

sador to Japan. Resanoff had married Schelikoff's daughter, and acquired with her a considerable property, which consisted entirely in bills, whose value depended on the successful continuation of the American Company. By great activity and a combination of measures, he succeeded in rendering the emperor so favourable to the new-established company, that he rejected the applications for its deposition; formally confirmed it in 1799; and gave it considerable privileges. Its residence was removed the same year from Irkutsk to St. Petersburg, and the trade at length assumed a flourishing appearance. Measures were adopted, the advantages of which were sufficiently proved by the success attendant upon them: the Company sent an Englishman to America, who was not only a shipwright but a seaman; and began to provide its officers with the best charts, voyages, the most necessary nautical and astronomical instruments, and such books as are relative to navigation.

It is, however, only since the reign of the present emperor, (who, immediately upon ascending the throne, interested himself very much in behalf of the Company, of which he became a member, and by his example induced many of the nobility to do so likewise,) that its duration, under the superintendance of the minister Count Romazoff, has been actively and zealously employed in giving a new form to this so long neglected branch of commerce. They naturally began by supplying their colonies, which being but newly established, and, from their situation in so poor and inhospitable a country, must soon have sunk into nothing without support, with every necessary, as cheap and as regularly as possible. Among these necessaries, even bread must be reckoned: for there is no corn

grown either in the Aleutic islands, or on the coast of America. The factories were placed in a better state of defence, and it was necessary to look to the construction of better ships, and to provide them with good rigging, anchors, and cables, upon which the safety of a vessel so much depends, and likewise to furnish them with skilful and experienced captains and crews. This, however, could only be effected by a direct communication by sea between Russia and her American colonies: and hitherto they had always been provided with necessaries through Takutzk and Ochotzk. The great distance, and the extreme difficulty of conveying goods and necessaries, for which purpose upwards of 4000 horses are annually employed, increased the price of every article, even in Ochotzk, beyond measure. For instance, at the cheapest times, a pud of rice, which in the eastern provinces of European Russia generally costs only half a ruble, was sold at eight rubles; a measure of brandy at twenty, or even forty and fifty rubles; and other articles in the same proportion; and frequently these goods, after travelling half way or more, were plundered, and only part of them reached Ochotzk. The conveyance of anchors and cables appeared almost impossible; and, owing to the want of them, such measures were frequently resorted to as could not but be attended with the worst consequences. The cables were cut into pieces of seven or eight fathoms in length, and spliced together in Ochotzk; and the anchors were, in like manner, carried there in pieces and afterwards joined again. Difficult and expensive as was this mode of conveyance to Ochotzk, it was equally so, and the risk much greater, from thence to the islands and the coast of America. The wretched construction of the vessels; the ignorance of most of their commanders; and

the navigation of the stormy eastern ocean, which throughout the year was attended with danger to vessels of this description, were the causes of many of them, together with their valuable and necessary cargoes, being lost almost every year;* and it now appeared absolutely necessary, if this trade were to be continued with advantage, and in future to be extended, that ships should be sent to the east sea round Cape Horn or the Cape of Good Hope, to the north-west coast of America: and in 1803 the first attempt to do this was resolved upon.

To the public it must be a matter of indifference who was the first person to propose this voyage; nevertheless I may be allowed to mention briefly a few circumstances which preceded the appointment of this expedition.

For several years past the very confined state of the active trade of Russia had occupied my thoughts; and, although it was a very natural wish in me to be able to contribute to its improvement, yet I could not but despair of seeing this wish carried into execution, since neither my situation nor the knowledge I possessed could afford me the smallest hopes of doing it. During the time that I was serving in the English navy in the revolutionary war of 1793 to 1799, my attention was particularly excited by the importance of the English trade with the East Indies and with China. It appeared to me by no means impossible for Russia to participate in the trade by sea with China

* Although the public has been made acquainted with many circumstances relative to this part of the introduction, through an article of mine in Storch's Annals; I think it, however, necessary to repeat them here, that the narrative may not be interrupted.

and the Indies. Most of the European nations which have any commerce by sea, had more or less share in the trade with these countries, so rich in all kinds of natural productions; and those which have particularly cultivated it, have always arrived at a high degree of wealth. This was first the case with the Portugueze, afterwards with the Dutch, and is so now with the English, nor can there be any doubt that Russia would gain by an intercourse with China and the East Indies, even although she had no establishments in those countries: the chief obstruction to trade, however, with these distant regions, is the want of people capable of commanding her merchant vessels. None but officers in the king's service could be employed for this purpose, and even among these, with the exception of a few Englishmen, there are not any at all acquainted with the East Indian seas. For this reason I determined upon going myself to India: Count Woronzow, the Russian ambassador in London, soon procured me an opportunity of doing so; and in the early part of 1797, I sailed to the Cape of Good Hope on board an English line-of-battle ship, and from thence in a frigate to India. I remained there a twelvemonth, and as I could not proceed to China in a king's ship, I went there on board a merchantman, in order to become acquainted with the dangerous navigation of the Chinese sea.

Hitherto my thoughts had been only bent on a trade from European Russia to the East Indies and China; but an accident gave my view of this subject another turn, and to this I may attribute the second voyage which I undertook. During my stay in Canton in the years 1798 and 1799, a small vessel of about a hundred tons, commanded by an Englishman, arrived

there from the north-west coast of America: it had been fitted out in Macao; the whole voyage did not occupy above five months; and the cargo, which consisted entirely of furs, was sold for 60,000 piasters. I knew that my countrymen carry on a considerable trade in furs with China, which they bring from the islands in the eastern ocean, and the coast of America; and that they are first obliged to carry their skins to Ochotzk, from whence they send them to Kiachta, which occasions a loss of two years and often more; that every year several vessels with their rich cargoes are lost during their voyage across the eastern ocean was likewise well known to me; and it therefore appeared to me that the advantages would be infinitely greater, if the Russians were to bring their goods to Canton direct from the islands or the American coast. This idea, little as it possesses of novelty, struck me as clear and convincing, notwithstanding it had never occurred to the proprietors of the fur trade in Russia, that I determined to make the necessary proposal for carrying it into execution immediately upon my return. During my voyage from China I drew up a memoir, with the intention of handing it over to M. von Soimonoff, at that time minister of commerce, whose commercial knowledge, patriotism, and readiness to forward any undertakings which were for the benefit of the nation, I had heard highly spoken of. In this memoir I laid great stress on the advantages which Russia foregoes by leaving her active trade in the hands of foreigners; and endeavoured to disprove the arguments generally adduced to show that it is more profitable for Russia to attend to her internal commerce; conveying at the same time my ideas upon the means of removing the difficulty with regard to the officers and men on board the merchant ships. I proposed to add to the

six hundred young persons who are brought up for the navy in the corps of sea cadets, and who are all of the nobility, a hundred commoners to be destined solely for the merchant service, but who should, in fact, be on the same liberal footing as the nobles. It seemed to me that good seamen could not fail of being produced from young people who had studied the theory of their profession, with the experience they would naturally acquire during their voyages on board these merchant ships; and I particularly recommended, that the captains of king's ships should be very attentive to the boys on board, and should point them out whenever they observed any rising talent, and recommend them, that their instruction might be completed in this corps. In this manner a most useful body of men might be created for the service of their country; nor would Cook, Bougainville, or Nelson, have ever been what they proved to theirs, if attention had only been paid to their birth. I next drew a slight picture of the Russian fur trade; represented all the obstacles to which the enterprising men who conduct it are exposed, although they are not to be deterred by any dangers; and showed of how great advantage it must prove to Russia if this trade were in any degree supported by the government. For this purpose I proposed that two ships should be sent from Cronstadt to the Aleutic islands and to America, with every kind of material necessary for the construction and outfit of vessels; and that they should be likewise provided with skilful shipwrights, workmen of all kinds, a teacher of navigation, as well as with charts, books, nautical and astronomical instruments. In short, that these merchants should be enabled to build good ships in their colonies, the command of

which they might intrust to skilful persons.* In these ships, which were to be constructed there, they should henceforth send their furs to Canton, but without entirely giving up the trade with the Chinese through Kiachta; and the money to be obtained from the sale of furs in Canton, should be appropriated to the purchase of Chinese wares, which could be sent to Russia in ships to be fitted out in the east sea for Canton for this express purpose, or even in the same ships which conveyed the furs from the colonies to Canton, and which on their voyage back, in case they did not procure a complete lading, should touch either at Manilla, Batavia, or the coast of India, and take in goods which in Russia cannot fail of finding a ready and advantageous market. In this manner it would no longer be necessary to pay every year large sums to England, Sweden and Denmark for East Indian and Chinese

* The difficulty of constructing ships in America, in the islands, or in Ochotzk are, however, so great, as I have since learnt by experience, even though all the necessary materials should be sent direct from Russia, that I think it would certainly be more advantageous to send small vessels for the purpose of trading there from the ports of the east sea. The freight of the cargo to be sent in these ships would more than pay the expense of the hulls and their outfit. These expeditions would also be attended with the great advantage of forming seamen on this long voyage, for those parts, where they are so much wanted, instead of the ignorant Promüschleniks, or fur-hunters, who now navigate the vessels, and would tend considerably to the safety of the Company's ships. At all events I consider an uninterrupted communication between the European ports of Russia and the Company's American colonies, and particularly the commerce with Canton, as the only means of bringing the trade of the Russian American Company into a thriving state, if the government holds it necessary to retain its establishments on the north-west coast of America, and firmly to support the system of an active trade. These undertakings, however, on the part of the American Company, would require an entirely new organization of their establishment.

goods, and Russia would soon be in a condition to supply the north of Germany with them at a lower rate than either of those nations, as their preparations are much more expensive than ours, and they for the most part can only carry on this trade with specie. The Russian American Company could not fail of becoming in time of so much importance that the smaller East Indian Companies of Europe would not be able to stand in competition with it. This was nearly the purport of my memoir.

I had scarcely arrived in Russia but I wished to present it in person to M. von Soimonoff, the president of the Board of Trade; but I could not obtain permission to go to St. Petersburg. In the mean time M. von Soimonoff, the most intelligent minister of commerce that Russia ever had, was dismissed, and Prince Gagarin appointed his successor. I nevertheless determined to give my memoir to M. von Soimonoff, convinced that if his ideas concurred with mine, he must still have sufficient influence to carry my proposal into execution; but he quitted St. Petersburg and soon after died at Moscow. Count Kuscheleff being at this time minister of marine, I determined to present my memoir to him, and as I could not be personally introduced, I sent him a short abstract of it; but the answer he returned deprived me of all hopes of my plan being adopted. My endeavours to interest private persons in such a speculation proved alike unsuccessful; perhaps they might not have been so if I could have obtained permission to pass a short time at St. Petersburg. At length Alexander I. ascended the throne, and Admiral Mordwinoff shortly after received the office of minister of marine:

a change that again awakened my hopes, and I lost no time in arranging my memoir, which I altered almost entirely: a residence of two years in Russia had opened my eyes to many things, but the material parts remained the same. In January, 1802, I sent it to the admiral: at first I was uncertain as to its fate, but in May I received an answer that my paper met with his entire approbation, and he would take the earliest opportunity of carrying the plan proposed in it into execution. He had imparted it to Count Romanzoff, the present chancellor of the empire, who at that time had just succeeded Prince Gagarin as minister of commerce, and who also favoured it with his approbation; and the proposed measures for the improvement of our American trade excited his warmest interest. Indeed it was only by such a zeal as was evinced by Count Romanzoff and Admiral Mordwinoff that an undertaking like this could so soon have been carried into execution, which, merely on account of its novelty, would naturally occasion great disapprobation and opposition. I hold it my particular duty to speak here of his Excellency Count Romanzoff, as it is chiefly owing to him, that after the proposed voyage had been determined upon, it was really carried into execution: the interest he took in it continued unabated to the last; and on our return it was the Count who proposed to his Imperial Majesty the rewards which he conferred, in a manner peculiar to our gracious monarch, on all who had any share in the expedition.* I

* All the officers on board both ships were raised a step in rank. The captains of the Nadeshda and the Neva received the order of Waladimir of the third class, and a pension of 3000 rubles for life. The lieutenants and the surgeons one of 1000 rubles. That of the other officers was in proportion to their pay. The men of science attached

may be permitted here, in my own name, as well as in that of all the persons who served under me, to offer my public acknowledgements; and I equally return thanks to his Imperial Majesty for his commands that the account of the present voyage should be published at the expense of the government.

After the execution of my plan was determined upon by the two ministers, Count Romanzoff and Admiral Mordwinoff, the account of the same was sent to his Imperial Majesty, and his Majesty was requested to call me to St. Petersburg. This was done in July, and immediately on my arrival, Admiral Mordwinoff informed me that the emperor had fixed upon me to carry my own plan into effect.* I was not a little astonished when I heard this, for I really had almost given up all hopes of my suggestion being acted upon, and never expected that I should have been selected for the purpose. It was now like-

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to the expedition received a pension of 800 ducats for life, and the crew, besides a yearly pension of from 50 to 75 rubles, were permitted, if they chose it, to quit the service.

* In the summer of this same year, an Englishman, established at Hamburgh, of the name of M'Master, came to St. Petersburg, to offer his service to the American Company. He offered to conduct a ship laden with goods to the American colonies; and required, as he was a shipwright, that the construction of the company's ships there should be consigned to him: he likewise proposed to make an establishment in the island of Urup, one of the Kuriles, which he bound himself to superintend for several years, in order to prosecute the whale fishery there: a project with which the American Company was at that time very much occupied. After a long negociation with the Directors of the Company, he returned to Hamburgh in the autumn, without effecting any thing. There is no doubt that this Englishman might have proved very useful to the Company: he appeared to me to be of an enterprising mind, a very skilful seaman, and a man of good qualities.

wise become more difficult for me to accept the proposal: a beloved spouse had, some months before, made me the happiest of men, and I expected shortly to become a father; nor could the attainment of all my other wishes have rendered me more happy than I actually was. My circumstances were independent, and I was on the point of quitting the service, in order to pass the rest of my days in a peaceful and undisturbed retirement; a happiness I was now to forego, and my feelings opposed me when I was about to accept this, to me, so honourable an appointment. But the minister declared to me that it was expected I should not refuse it; and that in case I did not undertake to carry my own plan into execution, it would fall entirely to the ground. I owed a sacrifice to my country, and I made it: I determined upon the voyage, and felt the greatest sorrow and affliction on account of my wife. How, indeed, could I remain insensible to the tears of a dearly beloved spouse, which I saw her shed daily during a twelvemonth? The consciousness of being useful to my country, which was always the object of my wishes, kept me steadfast to my resolution: the hopes of bringing the voyage to a happy conclusion encouraged me, and I began to make the necessary preparations for it.

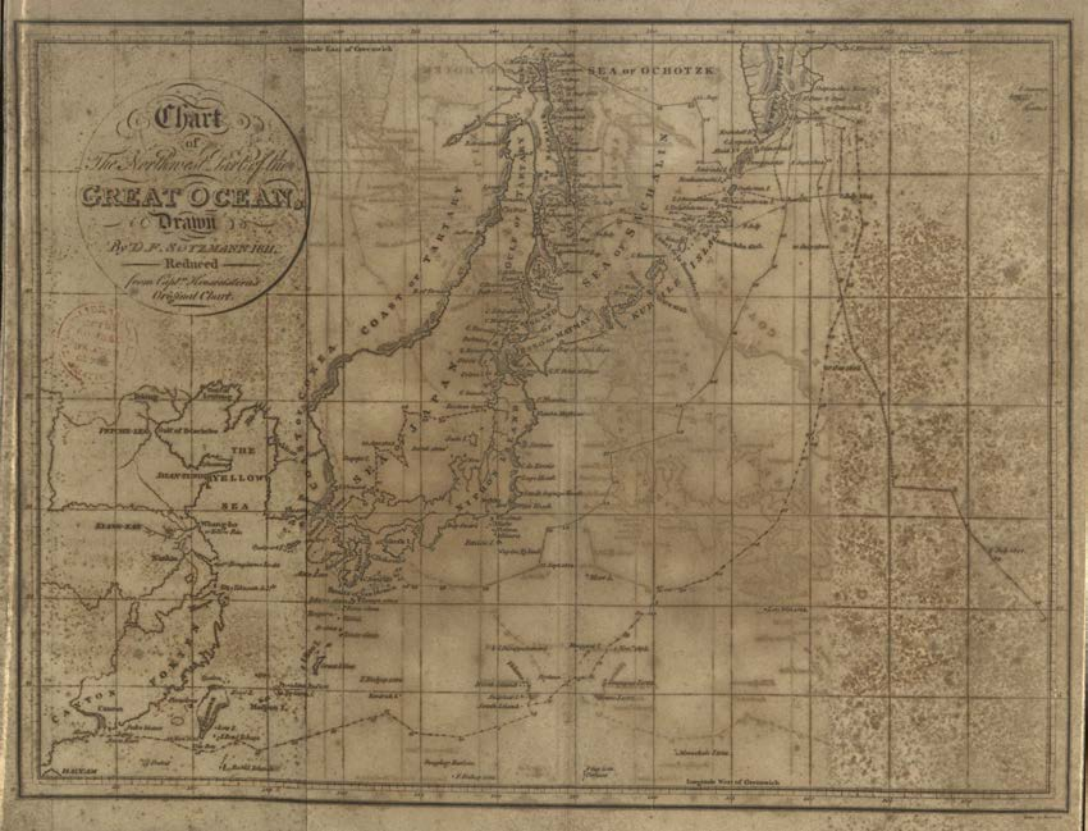
Chart
of
The Northwest Part of the
GREAT OCEAN,
Drawn
By D. F. SUTZMANN 1811.
Reduced
from Capt. Hoenstedern's
Original Chart.
Longitude East of Greenwich
SEA of OCHOTZK
COAST of TARTARY
GULF of TARTARY
SEA of SACHALIN
KURILE ISLAND
SEA of JAPAN
THE
YELLOW
SEA
Longitude West of Greenwich

KRUSENSTERN'S

VOYAGE ROUND THE WORLD

CHAPTER I.

PREPARATIONS FOR THE VOYAGE.

Appointment of a Commander to the Expedition—Purchase of the Ships in England—Determination on an Embassy to Japan—Arrival of the Ships at Cronstadt—Visit of His Imperial Majesty—Anchor in the Road—List of Astronomical and Philosophical Instruments—Names of the Officers—Choice of Provisions and Clothing—Visit of the Ministers of Commerce and Marine—Different Arrangements on board the Ships.

On the 7th August, 1802, I was appointed to the command of an expedition preparing for the N. W. coast of America. However flattering the enthusiasm with which the nation looked forward to this expedition, I was still not a little surprised to find that I was expected to set sail that same year. This appeared to me impossible, as the two ships were not yet provided, nor indeed were they to be procured in Russia. It was proposed to purchase them at Hamburg, where the cargoes were to be previously sent, so as to enable us to sail in October. This extraordinary hurry, in a preparation where the

particular attention to be paid to the purchase of vessels, as well as the advantages to be taken of favorable seasons for the different climates through which we had to pass, were of the greatest importance, appeared to me by no means calculated to secure the success of the undertaking. Upon my presenting a memorial, pointing out the disadvantages of this haste, the voyage was deferred until the following summer.

The selection of a captain for the second ship was left to me. In a voyage of so long a duration, and of so various a nature as ours, which, although conducted by officers of the navy, and intended, in some degree, for philosophical purposes, was principally with a view to commerce; and which, besides the mere sense of duty, required a particular turn of mind and great self-denial:---it was necessary that my choice should fall upon a man, whose attachment, obedience, and disinterestedness might continue the same upon all occasions. This man I expected to find in Captain Lisianskoy, who had served with me during the American war, on board the English fleet, and who had proved himself to be a skilful sea-officer.

As the success of the voyage depended chiefly on the goodness of the vessels, it was necessary to use the greatest precaution in the purchase of them. I therefore dispatched Captain Lisianskoy, accompanied by Rasumoff, a master ship-builder, and a young man of considerable talents, to Hamburg. Notwithstanding the general opinion that we should meet with some vessels there, they could find none fit for the purpose; without losing more time therefore, they proceeded to London, the only place where we may reckon with any degree of

certainty upon the purchase of good vessels. Even there, the precaution not to make too hasty a bargain, occasioned some delay; and it was not until February, 1803, I was informed that two ships, one of 450 tons, three years old, the other of 370 tons, fifteen months old, had been purchased for £17,000 sterling. In addition to this sum, their repairs had cost £5,000. The first of these two vessels was called NADESHDA, or the Hope; the other the NEVA.

In January, 1803, I left Revel, my usual place of residence, for St. Petersburg, in order to be present at the fitting out, and purchase of different articles. My wife accompanied me; but the being obliged to leave my young son behind was a bitter foretaste of a future, and still more painful, separation. I did not remain long in the capital, as an entire new project was added to the former plan of voyage; an embassy to Japan. In the year 1792, under Catharine II. such an embassy had taken place, which, contrary to expectation, had been favorably received by the Emperor of Japan, and a written permission brought back for a Russian ship to go annually to Nangasaky for the purposes of trade,---but only to Nangasaky, and unarmed, otherwise it was to be considered as a measure of hostility: this imperfect result was ascribed to some faults, but principally to the little pomp with which the embassy was conducted. The letter to the Emperor of Japan was not from the Empress herself, but from the governor of Siberia; which had greatly mortified the proud monarch (of Japan.) They had not gone to Nangasaky, although this place alone is open to foreign ships, but into a harbour on the coast of Jesso. The ambassador Laxman was of low rank, and too coarse in his

manners to make any favorable impression on a suspicious nation, which, in the judgment of Europeans, looks more to outward show and parade than to inward merit. Ten years had elapsed, without any use being made of the Emperor of Japan's permission. The extension of Russian commerce under the reign of Alexander I. appeared to make a closer connection with the eastern nations desirable; and it was determined to send a new embassy, taking care to avoid the errors into which the former had fallen. An observation, made in one of the conferences held upon this subject,* that the return of the ships would be delayed at least a year by this step, and the commercial advantages of the expedition in consequence diminished, the Emperor resolved to take the ship destined for the embassy entirely upon his own account, allowing the American Company, at the same time, to put as many goods on board, as could conveniently be stowed; a favour which amply compensated them for every other loss. As only one ship could go to Nangasaky, they were to separate at the Sandwich islands: the Nadeshda was to convey the embassy, which it was supposed might be done in a couple of months, to Japan, and thence proceed to winter at Kamtschatka or Kodiak, and the Neva was to sail immediately to the N. W. coast of America and to winter at the same place. In the summer of the following year, the two ships were, according to the original plan, to call at Canton after taking in their lading, and from thence return to Russia.

* There were present at this meeting: Count Romanzoff, the minister of commerce; Admiral Tschitschagoff, the minister of marine, who had succeeded Admiral Mordwinoff in the ministry some months before; M. de Resanoff, and the Directors of the American Company.

M. de Resanoff, who has been mentioned in the Introduction, was appointed ambassador extraordinary to the court of Japan, and shortly after invested with the order of St. Ann, and the title of privy counsellor. Valuable presents were prepared to secure the favour of the monarch and his ministers, and to effect this with the greater certainty, the Japanese who in 1796 were captured in the Aleutic islands, such of them, at least, as had not embraced the Christian religion, and wished to return home, were to be conveyed back from Irkutsk, the place of their confinement. M. de Resanoff was permitted, in order to increase his suite, to take with him a few young gentlemen of rank, as attached to the embassy. As a number of young persons were to make this voyage at the expense of the government, I wished to occupy the spare room in my ship with such as might contribute to the improvement of science. Our long stay in the southern hemisphere, and the objects of general philosophy, appeared to offer useful employment, particularly, for an astronomer. Mr. Counsellor Tilesius, a scholar, well known on account of his early writings, had been recommended for the expedition, in the preceding autumn, by the Count de Manteufel, who at that time resided in Berlin. Two draftsmen, of the St. Petersburg Academy of Arts, were to accompany us. We were however obliged to leave one behind. I therefore ventured to apply for the appointment of an astronomer. Count Romanzoff, who is animated by a praiseworthy zeal for science, wrote immediately to the celebrated director of the Seeberg Observatory, the Baron von Zach, who shortly after proposed for this service Dr. Horner, a Swiss by birth, and one of his scholars. The worthy Director will allow me to return him here my warmest

thanks for selecting so excellent a man, and one whom I shall always be proud to call my friend, to accompany me.

On the 5th June, 1803, the ships destined for the voyage arrived at Cronstadt; I hastened to examine them and found them excellent, as well on account of their construction as of their internal arrangement. As the ambassador was, with his pretty numerous suite, to sail on board my ship, I chose the Nadeshda as being the largest of the two. Notwithstanding the repairs which had been made in England, I found myself under the necessity of changing for new, two of the old masts, as well as all the rigging. This cost us considerable time and labour, and without the friendly assistance which Admiral Mäsoedoff, at that time port captain, and Captain Bütschenskoy, his assistant, afforded me, with the most unremitting attention, we should not have been able, even in the long space of time we were obliged to pass at Cronstadt, to have completed all our work. It is no more than my duty to make my public acknowledgment to these two persons.

On the 6th July I was enabled to give orders for the two ships to be brought into the roadstead, in the expectation of sailing in a few days; but we had the happiness of first seeing His Imperial Majesty at Cronstadt. The object of his visit was to see the two ships which were to carry the Russian flag, for the first time, round the world: an event, which, after a hundred years' improvement in Russia, was reserved for the reign of Alexander. The Emperor's first step, after quitting his barge, was to proceed on board the two ships. He noticed every thing with the greatest attention, and expressed his

satisfaction, as well with the ships themselves, as with the different articles which were brought from England for the voyage. He conversed with the commanders, and attended for some time with pleasure to the work which was going on on board the ship. I conceived myself particularly fortunate in the opportunity of giving loose to my gratitude, and expressing to the Emperor the sense which I entertained of his extraordinary munificence towards me: for he had been so gracious as to assign the revenues of an estate, amounting to the yearly sum of 1500 roubles, for twelve years, to my wife, in order, as he kindly expressed himself, to set my mind perfectly at ease, during my absence, with respect to the welfare of my family. An act of grace which surprised me, and which I valued the higher, as it proved how much the Emperor felt that a favour conferred upon my wife would be infinitely more grateful to me than if it had been bestowed upon myself.

Captain Lisianskoy, who, as has been already mentioned, had attended to the purchase of the ships, had provided them with all the articles which are indispensable in so long a voyage. Among other things, he had procured a considerable supply of the best antiscorbutic remedies; such as portable soup, essence of malt, essence of fir, or spruce, dried yeast and mustard; as well as the best medicines, a list of which Dr. Espenberg, the surgeon of my ship, had sent after him to England. I had bespoke six timepieces and a complete assortment of astronomical and other philosophical instruments. Four of the timepieces were made by Arnold and two by Pennington. These I carried directly to St. Petersburg, and gave over to my worthy friend Schubert, of the aca-

demy, who, with the greatest kindness, undertook to attend to them. I am the more indebted to him on this account, because of the great value of time to a man who has enriched the world with such excellent writings upon one of the highest branches of literature. The astronomical instruments were all made by Troughton, and consisted of a reflecting circle, twelve inches in diameter, with flying nonius. A ten inch sextant and stand for each ship, two artificial horizons, a theodolite, two azimuth compasses, a nautical barometer, an hygrometer, a thermometer, and an artificial magnet. An achromatic telescope with tripod and equatorial motions, for observing, on shore, the eclipses of Jupiter's satellites, &c. which I had bespoken, was not sent, but I supplied the want of the former in England. The instruments which Mr. Horner brought with him from Hamburg, or bought afterwards in England, were—

A portable transit telescope, with an astrolabe affixed to it giving 10 seconds.

A 10 inch sextant, by Troughton.

A stop watch.

A pendulum apparatus of M. von Zach, with silver doublepins, and a micrometrical beam compass.

Another apparatus, with a constant pendulum.

An astronomical quadrant, by Adams, of 1½ foot radius, with a division of 90 and 96, to be used either horizontally or vertically.

A three feet transit by Troughton.

A clock, by Brockbank, the pendulum with wooden rod.

A thermometer, of the kind invented by Six, which shews the greatest degree of heat and cold that has taken place du-

ring the absence of the observer, as a supplement to an instrument for ascertaining the temperature of the sea under water, which I received from Admiral Tschitschagoff, and which was made by Scheschurin, a Russian artist.

A portable barometer by Troughton.

An electrometer by Saussure.

An hygrometer by De Luc.

An aerometer by Troughton.

Two surveying compasses.

An excellent collection of charts, and a well chosen library, left me nothing to wish for in that respect: but the greatest treasure we possessed, and for which we were indebted to the liberality of the Baron von Zach, consisted of a perfect copy of the new lunar tables, by Bürg, which had gained the First Consul's double prize at the National Institute. It was reserved for our expedition to make the first use of these tables, which were corrected up to April of the current year. Their surprising exactness enabled us to ascertain our longitude within a few minutes, while the Ephemeris, calculated according to Mason's lunar tables, put us out of our reckoning, even in our best observations, nearly half a degree.

I conceive it will not be quite superfluous to say a few words respecting the equipment of our ships, as they were the first of this nature which had been fitted out in Russia. On this head there is always something that deserves mentioning, although it may not perhaps be interesting to the general reader.

The choice of the officers and crew was left entirely to

myself, so that it was easy for me to select them according to my own pleasure. The Chevalier Ratmanoff I chose as my first lieutenant. He had served fourteen years in his present rank, and mostly commanded a ship of war. During the last hostilities with France he had so much distinguished himself by his courage and activity, that he obtained the order of St. Ann of the second class. M. de Romberg, with whom I had served in 1801 on board the Narva frigate, which I commanded, and with whose skill I was well acquainted, was my second lieutenant. The name of my third lieutenant was Golowatscheff. I had selected him for this voyage without having seen him. He was universally approved, and until the unfortunate circumstance which took place on our return, at St. Helena, I never found any cause to repent of my choice. A M. von Löwenstern was my fourth lieutenant; he had lately quitted our service, after having been six years in England, and in the Mediterranean, under the command of Admirals Channikoff, Kartzoff, and Uschakoff. At the expiration of the war, (the uniform duty in time of peace having no charms for one of his active disposition,) he left Russia in order to enter the French service. From thence he hastened back as soon as he was informed of my voyage, and at Berlin he met with my proposal that he should accompany me. To an amiable and cultivated mind, he added a very extensive and well grounded knowledge of his profession. The choice of Baron Billingshausen, my fifth lieutenant, I made, like that of Lieutenant Golowatscheff, without being personally acquainted with him. His reputation as a skilful and well informed officer in the different branches of navigation, which I found to be perfectly just, induced me to propose to him to sail with me. Dr. Espenberg I chose as physician to my ship. We had long

been friends; and I may perhaps attribute to this friendship alone, his resolution to undertake the voyage. I was acquainted with his skill; and, in my endeavours to preserve the health of the crew, I met with the most active assistance from him. Dr. Laband I chose as physician to the other ship. He had been recommended to me by some of my friends in St. Petersburg as a man of great knowledge, and of a most amiable character; qualities of which he gave sufficient proof during the voyage, and which made me regret that our ships were so often separated. The Counsellor von Kotzebue was desirous that his two sons, who had been educated in the corps of cadets, should accompany me. His request to the Emperor, to this effect, was immediately acceded to. Difficult as the father must have found it to allow them to undertake so dangerous a voyage at the early age of fourteen and fifteen years, yet the result has fully repaid him for this sacrifice of paternal affection. They have profited very much by the expedition, and are returned improved and well informed young men.

My crew consisted of fifty-two men, of whom thirty were sailors: all young and vigorous, who had offered themselves at the first report of the expedition. Two of them I was obliged to part with just before I sailed. Some symptoms of scurvy had appeared upon one of them, and the other, who had been married about four months, had fallen into a state of deep despondency at the prospect of parting with his wife. I had indeed advanced him more than his yearly pay of 120 roubles, to provide for her, and he was besides in very good health; however I left him behind, as I considered a contented

and cheerful disposition as far more necessary upon such a voyage than even constant health. I wished too that no constraint should be used in this expedition.

All my sailors were well supplied with clothes and linen, the greatest part of which I had ordered from England. Besides this, I had had mattresses, pillows, sheets, and coverlids, made for each man, and, as a necessary measure of precaution, caused a considerable additional supply of clothes and linen to be provided. The ships' provision was on the whole very good. The biscuits made in St. Petersburg of wheat flour lasted upwards of two years perfectly uninjured. The salt meat was in part pickled in Hamburg, and part of it at St. Petersburg; that of St. Petersburg was particularly good, and continued without spoiling during the whole of the voyage. As it is the first example of meat prepared with Russian salt keeping three years, in all kinds of climates, the name of the man, whom we have to thank for it, certainly deserves to be remembered. He was called Oblomkoff. The quantity of butter which I took with me was but small, as it will not keep between the tropics, and, when in a rancid state, is prejudicial to health: instead of this article, I took out a considerable quantity of tea and sugar, as I was anxious to accustom my people by degrees to this healthy and antiscorbutic beverage. I promised myself too, great assistance, in preserving the health of the crew, from the use of sourcrout and cranberry juice. With the preparations, which, in this respect, were made for the expedition, I had every reason to be satisfied; but to my no small mortification, it was discovered, upon unloading the ships during the voyage, that sufficient at-

tention had not been paid to the choice of casks, the consequence of which was, that a good deal of the provision was destroyed. I regretted particularly the loss of the sourcrout, nearly two-thirds of which I was obliged to throw overboard; and I was under the necessity of packing a great proportion of the biscuit in sacks, as I had no room for the casks in which it had been stowed, and it was impossible that, packed in this manner, it could keep for any length of time.

In the fitting out of my ships, it was necessary to provide for the different objects of the voyage, the combination of which was attended with many inconveniences. The ship belonged indeed to the Emperor, and was destined for the embassy; but it was also allowed to the American Company to lade it with their goods. Of this lading, and of the many presents destined for Japan, I could obtain no previous information: with regard to the latter, indeed, I continued in ignorance until the last moment. I was in the road, and effects were still arriving, which I was not a little puzzled how to stow. I was therefore obliged to resort to measures, which, in the end, might have proved very injurious, and to leave behind a supply of meat and biscuit sufficient for nine months, as well as a considerable quantity of cordage. The ship was, notwithstanding this, so deeply laden, that she would have suffered severely in a storm. Had the whole of this merchandize, as well as the ship's provisions, and the presents destined for Japan, been sent sooner to Cronstadt, we might easily have calculated, upon the arrival of the ships, how much could conveniently be stowed away; but they were only sent by degrees from St. Petersburg, after their arrival. The constant westerly winds occasioned like-

wise a considerable delay in their conveyance. I might indeed have remedied the evil, by causing the ships to be again unloaded, for which, as it afterwards proved, there was more than sufficient time, as I was detained three weeks in the roads; but as the ambassador was expected daily, it appeared to me that we should gain time by doing this at Copenhagen, where I should at all events be obliged to stow the cargo anew, in order to make room for 80 puncheons of brandy, which I was to take in there.

During this time, and while we lay in the roads, we had frequent visits from St. Petersburg. Many persons were astonished to perceive how very heavily we were laden, and how little prepared to undertake so long a voyage, without exposure to the risk of losing half our crew. Nor was it likely that the Emperor would remain long unacquainted with our condition. The ministers of commerce and marine were directed by His Majesty to proceed on board the ships, and consider the means of procuring us more comfort and security. These gentlemen arrived on the 2d of August, and gave orders that, as the ship was so overcharged, as much of her cargo as I might think fit should be left at Copenhagen. And on account of the want of accommodation, (the officers amounting to more than twenty-five persons,) it was farther resolved, that five of the volunteers attached to the ambassador's suite, should remain behind. The enthusiasm of these gentlemen to undertake the voyage, was however so great, that they were willing to put up with every inconvenience, and insisted that no difference should be made between them and the common men; and it would indeed have grieved me to exclude so many young persons of

education. Notwithstanding all this, we were so crouded, that, had not my crew been already very small, I would willingly have left some of them behind, to procure more convenience for the others. After these arrangements, I looked upon the preparations for sailing as completed, and therefore imparted my signals to Captain Lisianskoy, as well as my instructions for the voyage, and for our rendezvous, in case of separation. I now waited only for a fair wind to put to sea.

On the 20th July, I received my timepieces on board. They had been a month in the observatory of the Academy, where the Privy Counsellor Schubert had compared their daily rate of going with the culmination of the sun and different stars.

On the 18th July at noon, No. 128 (a box timekeeper by Arnold) was slower by $2h.\ 9'\ 40''$ than mean time at St. Petersburg, and was losing daily $+9''\ 376$. No. 1856, a pocket chronometer by Arnold, was slower by $1h.\ 55'\ 42'',97$ than mean time at St. Petersburg, and gained daily $-7'',513$. The third watch, a pocket chronometer by Pennington, was faster $0h.\ 0'\ 22'',63$ than mean time at St. Petersburg, and lost daily $+5''\ 215$. The Observatory stands $2h.\ 01'\ 1''$ east of Greenwich.

The rate of going of these watches had altered very much in the space of two months; for upon their delivery to Captain Lisianskoy in London, it was

No. 128	$+4''\ 88$
No. 1856	$-2''\ 60$
Pennington	$+0''\ 79$

I consider it my duty to mention the names of those who for the first time ventured to undertake so long a voyage under the Russian flag. In a country where similar expeditions were altogether new, such an adventure was likely to inspire more enthusiasm, and, in many, more alarm, than in countries where voyages round the world, and an absence of several years were already become common. The greatest extent of Russian navigation in the Atlantic had never yet reached the tropics. We had now the prospect of proceeding as low as the 60° of north latitude in one hemisphere, and up to the same degree of south latitude in the other. The tempests of Cape Horn, the burning heat of the equator, might well alarm persons, who had no means of forming a correct idea of them; yet there were so many volunteers for the voyage that it would have been an easy matter for me to have filled several larger ships with the best sailors of the Russian navy. I had indeed been advised to take some foreigners among my crew: but I knew too much of the spirit of Russian sailors, whom I prefer to all others, even to the English, to listen to this proposition. Except MM. Horner, Tilesius, Langsdorff and Laband, there were no foreigners on board either of the ships.

NADESHDA.

Capt. Lieut. von Krusenstern, Chief of the expedition.
Mackary Ratmanoff, ... 1st Lieutenant.
Fedor v. Romberg, ... 2d do.
Peter Golowatscheff, ... 3d do.
Herman v. Löwenstern, . . . 4th do.
Baron Billingshausen, ... 5th do.

Philip Kamentschikoff, . . . 1st Pilot.
Wasiley Spolochoff, ... 2d do.
Dr. Charles Espenberg, . . . 1st Physician.
John Sydham, ... Surgeon.
Dr. Horner, ... Astronomer.
Dr. Tilesius, Dr. Langsdorff, } Naturalists.

The latter quitted the ship on the 26th June, 1805, on a journey to the N. W. coast of America.

Otto v. Kotzebue, Moritz v. Kotzebue, } Cadets.
Alexey Raiffskoy, Serjeant of Artillery.

Ship Clerk	1
Sailmaker	1
Carpenters	2
Caulkers	2
Cooper	1
Gunsmith	1
Boatswain	1
Quartermasters	4
Gunners	2
Sailors	30
Ship's Cook	1
Servants	2
	48

In all 64 persons.

NEVA.

Capt. Lieut. Lisianskoy.
Pawell Arbusoff, ... 1st Lieutenant.
Peter Powalischin, ... 2d do.
Fedor Kowcdäeff, ... 3d. do.
Wasiley Berg, ... 4th do.
Danila Kalinin, ... 1st Pilot.
Dr. Laband, ... 1st Physician.
Peter Korabitzin, Clerk of the American Company.

The crew of the Neva consisted of 46 persons besides the abovementioned officers.

In the suite of the ambassador to Japan, his Excellency the Counsellor of State and Chamberlain Resanoff, on board the Nadeshda, were

Herman von Friederici, Major of the General Staff.
Count Fedor Tolstoy, Lieutenant of the Guards.
Fedor Fosse, Counsellor.
Stephen Kurlandzoff, painter of the Academy.
Dr. Brinkin, Physician and Botanist.
Fedor Schemelin, Clerk of the American Company.

A Huntsman, a Cook and a servant: besides five Japanese, and six passengers for the colonies on the N. W. coast of America.

In all, on board the Nadeshda, 85
On board the Neva, ... 54

With the exception of Major Friederici, all the suite of the

ambassador returned overland to St. Petersburg. They left the ship at Kamschatka in the year 1805.

On the 4th August, N. S. (which I shall constantly use) the wind shifted to the eastward, and I immediately made the signal to weigh; before two hours, however, had elapsed, it shifted round to the westward, and blew very hard until the 7th, when it allowed us to quit Cronstadt. I had now a painful task before me, to take leave of my beloved wife. I left her in the arms of friendship. I shall never be able to make a sufficient return to the excellent family, who, during our stay at Cronstadt, gave us the most friendly and tender reception, for their kindness to myself and to my disconsolate wife.

CHAPTER II.

DEPARTURE FROM RUSSIA AND ARRIVAL IN ENGLAND.

The Nadeshda and Neva sail from Cronstadt—Their Arrival in Copenhagen Roads—Their Stay there prolonged—Danish Naval Archives—Commodore Löwenorn—Construction of new Lighthouses on the Danish Coasts—Copenhagen Admiralty—Departure of the Nadeshda and Neva for Falmouth—Storm in the Skagerrak—The Ships separate—The Ambassador goes on board an English Frigate to London—Arrival of the Nadeshda at Falmouth—Joins the Neva—Stay at Falmouth.

On the 7th August, at nine in the morning, the wind shifted from S. W. to S. by E. and by ten we were under sail. Admiral Channikoff came on board, to wish us a happy voyage, and accompanied us to the guard-ship which lies about four miles from Cronstadt. The day was very fine and warm, and the chronometer stood at 17°; it seemed however to threaten bad weather. The nautical barometer fell in a few hours 4 lines, from 29*in.* 90 to 29*in.* 50. At noon the lighthouse at Tolbuchin bore N. E. 74° some miles off; and at eight *p. m.* the lighthouse on the island Seskar S. W. 20°. At ten the wind shifted in a squall to S. W. and obliged us to tack during the night. The next day it increased, and blew at S. W. and W. with very bad weather, so that we were obliged to beat about off the island of Hochland, so much decried by our sailors, as we could not weather it.

On the 10th August, the wind fell, and we again had some fine weather, which was very acceptable to our young Ar-

gonauts. At noon, our latitude was observed to be 60° 03′ 39″ N.; the longitude, according to the timekeepers, was 26° 58′ 15″ E. of the meridian of the observatory at Greenwich.* At two *p. m.* we weathered Hochland. At eleven, got a good lunar observation for the calculation of our longitude. According to this, reduced to mid-day, it was 26° 48′ 00″ E. By the timepieces, it was 26° 41′ 12″. The latitude at noon was 59° 56′ 00″ N. At length the wind, to our no small satisfaction, shifted to S. E. At nine *p. m.* we perceived the lighthouse on the island of Kockschar, bearing S. W. distant eight miles. The longitude of this lighthouse I found by the timepieces to be 25° 27′ 26″ E. At twelve, according to our reckoning, we had passed Revel, and at six the next morning, the lighthouse at Packerort and the island Ottesholm. At ten, we saw the lighthouse upon the isle of Dagen, which, at mid-day, bore S. E. 14°: during the afternoon we lost sight of it. The longitude of this lighthouse I found 22° 07′ 10″ E., and that of Packerort 23° 51′ 18″ E. On the 13th August, in 57° 44′ 30″ latitude, and 20° 00′ 45″ longitude, we found the variation of the needle to be, according to several observations made with two compasses, 13° 15′ 10″ W. On the 14th, at five in the morning, we perceived the island of Gothland, along the coast of which we sailed during nearly the whole day, at the distance of about 10 or 12 miles, and enjoyed a very beautiful prospect. This morning, at eight, a seaman belonging to the Neva fell overboard, and although a boat was immediately lowered,

* The longitude throughout the voyage is calculated by the meridian of the observatory at Greenwich: from Cronstadt to Greenwich, east; then west, until the circuit is completed; and again east, until their return to Cronstadt.—TRANSLATOR.

it was not possible to save him. He was an excellent swimmer and of a strong constitution; and we concluded that he must have disabled himself in his fall. At four *p. m.* we saw point Hoburg, in the island of Gothland, bearing N. W. by N. distant about 12 miles. At five, the variation of the needle was 14° 45′ 00″ W., our latitude being at that time 57° 02′ 50″ N. At twelve the next day, the island of Oland was seen from the masthead, and at four *p. m.* the fire beacon, which stands at the southernmost point of this island, bore N. W. 39°, distant about 15 miles. The longitude of this point was, by our timepieces, 16° 28′ 30″ E. As, according to my reckoning, we should pass the island of Bornholm at about two *a. m.*, and the wind blew very fresh at E. S. E. with bad weather, I considered it prudent to lye by for some hours during the night. On the 16th August, at day-break, we saw the island, the northernmost point of which, at six o'clock, bore S. S. E., about 6 miles off. This point, upon which there is an excellent lighthouse, built by Commodore Löwenorn, is, by our timepieces, 14° 42′ 20″ E. At half past three we saw the isle of Mön. The wind, which had blown pretty fresh, now became so moderate, that we were obliged to cast anchor about 21 miles from Copenhagen. Early the next morning we weighed again, and about half past five in the evening came to an anchor in 7¼ fathoms water, over a clayey bottom, in the outer road of Copenhagen. The Crown battery bore S. W. 65° of us: the round tower in the town, S. W. 50°.

Immediately after we had anchored, an officer from the Crown battery came on board to congratulate us on our arrival, and to offer us, on the part of the government, every assistance that

we might stand in need of, for the advancement of our affairs. As we should have to unload the ship entirely, I requested permission to do this in the inner road, which was granted me by the Admiralty the next morning. I sent the powder off immediately, and on the 20th August we went in with the Neva, where, for the greater security, we moored both ships, at double anchor. The Admiralty likewise provided us with boats to unload, and we therefore began the task, which was attended with more difficulty than I had imagined, without delay, and after ten days labour had nearly completed it, when I received a letter from our consul at Hamburg, which placed me in the very unpleasant necessity of recommencing our labour: for I was advised to pickle again the salt meat which had been purchased in Hamburgh; as it would otherwise not keep long. This tardy advice was too important not to be taken, although it obliged us to unload nearly the whole ship; as I had been induced, at Cronstadt, to stow this meat, from its particular goodness, quite at the bottom of the ship, with the intention of not using it for two years. Upon resalting it, it appeared, that within a very few months we should have been obliged to throw nearly the whole of it overboard, as several casks of it were already damaged. I now therefore had the greatest part of the salt meat from Petersburg examined, which was in every respect better than that from Hamburg: we found however that more of the casks were bad, which we changed for new ones. Without this precaution, and that of again salting the meat purchased at Hamburg, I am convinced that the half of these provisions would have been destroyed.

Our long stay at Copenhagen was very unpleasant to me,

as well on account of the vexatious employment I had there, as of the loss of time. I was however fully repaid by the society of M. Bugge, Director of the Copenhagen Observatory, and M. Löwenorn, Captain of the Danish fleet. The instructive conversation of these two worthy men, rendered their acquaintance infinitely agreeable to me, in my present situation. Professor Bugge, with the greatest kindness, allowed me to leave my chronometers in the observatory, and offered to attend to them during our stay: a task which he very punctually executed. M. Bugge possesses an excellent cabinet of natural history, of which he makes constant use in his lectures, which are attended by the principal people of Copenhagen. His library is considerable, and appears to be well chosen. His astronomical books occupy a small room adjoining the great library, which, at the same time, serves him as a study.*

The Copenhagen observatory, it is well known, owes every thing to its present worthy Director, having before his time been merely a name. Its situation upon what is called the round tower, the height of which is 120 feet, is excellent. The prospect from this tower is very fine: it overlooks the whole city, the harbour, and the road. The opposite coast of Sweden is very clearly to be distinguished, and, with a tolerable glass, one may count the houses in Malmoe and Landscrona. This tower was built in the reign of Christian IV. and converted into an observatory in the year 1656, by Christian Longomon-

* In the bombardment of Copenhagen in 1807, Professor Bugge is said to have lost the whole of his library, his cabinet of natural history, and a very valuable collection of charts.

tanus, a disciple of the celebrated Tycho Brahe. The chief instruments in this observatory are a quadrant to fix in the wall, with a radius of 6 feet, by Ahl; a zenith sector of 12 feet; a passage instrument, and a whole circle, being the first that ever was used; one of Herschel's 7 feet telescopes; a 10 feet achrometer, and one of 3 feet, by Nairne and Blunt, and some quadrants. Near the observatory are four comfortable rooms, in which Syöberg and his sons, Mr. Bugge's assistants, reside. I saw here also several chronometers made by a Copenhagen artist of the name of Armand, which, with the exception of one, were all very bad. Some years ago Captain Löwenorn was sent to the West Indies to try these timepieces, and as his report was unfavorable, they will probably never come into use.

In Denmark, the office of head pilot is combined with that for the construction and superintendance of the lighthouses. M. Löwernorn, who has held this office, since the death of Admiral Lous, is indefatigable in his endeavours to execute, in the best possible manner, this (on account of the danger of the Danish and Norwegian coasts) most important part of his laborious duty. There is scarcely a lighthouse, which, since he has had the direction of them, has not been either rebuilt, or considerably improved. He has already constructed four new ones, since the year 1797. During our stay here, he was particularly occupied in the construction of a new lighthouse upon Christians-öe near Bornholm, which, as it will require, on account of the vicinity of that upon the northernmost point of Bornholm, which is lighted by a coal fire, a different one, easily to be distinguished, he has determined to light by a

parabolic reflector to be turned by clockwork. He had the goodness to shew me both the reflector and the machinery. There are nine reflectors of brass, polished with emery, and twice gilt in the fire. The six side ones are four feet in diameter, and the three middle ones rather smaller than the rest. They are a little concave. The focus is at a distance of 4½ feet. An important improvement in the same, which is entirely of the invention of M. Löwenorn, is, that before every lamp opposite the great mirror, he has placed a small reflector, 2½ inches in diameter, about 4½ inches off, to collect the rays of the light which would otherwise be lost. The reflectors are driven round in six minutes by a large machine, which appeared to be so admirably constructed, that Dr. Horner, who had lately seen some of a similar kind in England, preferred this to the English.

M. von Löwenorn has also been Director of the Royal Naval Chart Archives since the year 1784. The important charts which have been published under his direction are in the hands of every seaman, and are particularly valuable from being mostly accompanied by a very instructive memoire. The Danes have been employed for some years in making an astronomical and trigonometrical survey of the coasts of Norway; of which six charts have already appeared, and must be particularly good, as the most skilful officers were employed in constructing them, under the immediate inspection of the astronomer Bugge.* The Sea Chart Archive is in the old Holm: although no fine building has been appropriated to it, the

* Upon my return to Copenhagen in 1806, this survey of the Norway coasts was completed, and all the plans engraved.

establishment is nevertheless very complete and convenient, and possesses a collection of almost all the European charts and voyages. M. von Löwenorn proposes to establish here a smaller observatory, for which the house is well situated. It is well known, that by his recommendation a commission for nautical longitude was established in Copenhagen in the year 1800, of which he and Professor Bugge, are the directors. The object of this new establishment is to give the calculations of the moon's distance from the planets. In 1804, the first number of these Danish Ephemeris is to appear.*

Through the kindness of the Chamberlain Sten Bille, who is also Captain of the Fleet and member of the Admiralty, we were allowed to visit that institution. It has long had the reputation of being complete and perfect in its arrangement, and it is impossible to deny it this praise. Every ship in the royal navy has, in the different storehouses, which are all built with taste, a particular apartment allotted to the materials for fitting it out. In one is all the rigging, in another the cables, in a third the sails; in a fourth all the guns. The masts and yards have also their different sheds, so that the whole fleet can be fitted out in a very short time without the slightest confusion, or the loss of time with which it must otherwise be attended. In the Naval Arsenal there appears too the greatest possible order. The supply of timber for ship-building, which is not kept in the open air but in magazines appropriated to that purpose, was very considerable. We visited an entire new

* Many important reasons occurred to prevent this useful undertaking from being carried into effect.

ship, of 84 guns, the Christian VII, one of the handsomest that I ever saw. The master-builder, Captain Hohlenburg, who has built several ships which have all met with approbation, had just quitted the service, to go to the West Indies, where he is to lay the foundation of a dock in the island of St. Croix.*

On the 23d August, two Danish Chinese ships arrived at Copenhagen. One of them, of 1400 tons, sailed two months before the other from Canton, but had sprung a considerable leak, by which a great part of her cargo consisting of tea, nankeen, coffee, sago, rhubarb and china-ware had been destroyed, and she had been obliged to run into an English port. A mutiny likewise was said to have taken place among the men. The ship had 160 seamen, 30 of whom were lascars or East Indian sailors, and 10 Chinese, who had been taken on board, as 40 of the crew had died at Batavia, where they touched on their voyage out. There was a greater want of cleanliness in this ship than I ever saw on board any other; but this was in some measure owing to the constant pumping and the foul evaporations in consequence.

Of the two scientific men who were engaged for our voyage, Dr. Horner as astronomer, and Dr. Tilesius as naturalist, and who had been appointed to meet the ships at Copenhagen, we found the first waiting for us. The second arrived a week after, and Dr. Langsdorff some days later. The last had just

* He died there in the year 1805.

returned to Göttingen from a journey to Portugal and England, and had there first heard of our voyage. His offer to accompany the expedition as a naturalist could not be accepted in St. Petersburg, as Dr. Tilesius was already engaged; such however was the enthusiasm of this philosopher, and so great his ardour to join in the voyage, that he was not to be deterred by this, but went to Copenhagen to make another attempt to gain his wishes, and succeeded.

On the 4th September the lading of the ships was quite completed. A very strong wind at N. W. prevented us however from going into the outer road; though it did not deprive us of the pleasure of a visit from Count Bernstorf and the Imperial Ambassador Count Kaunitz Ritberg, accompanied by their wives.

On this day we also took our timepieces on board. Since the 21st August they had been in the Royal Observatory, where Professor Bugge had tried their rate of going daily by the culmination of the sun and several stars.

On the 1st September, 128 was later than mean time at Copenhagen 1*h*. 5′ 11″ 9, and lost at her then rate - - +8″ 42.
1856 was later than mean time at Copenhagen 0*h*. 56′ 51″ 5, and was gaining daily - - - - - - - - - - - −5″ 56.
Pennington's pocket chronometer was later than mean time at Copenhagen - - - - - - - - - - - - - 1*h*. 0′ 8″ 4.

The following is a comparison of the rate of going of these

three chronometers in London, St. Petersburg and Copenhagen.

Arnold's, No. 128, in April, in London - - - - -	+4″ 88
the 20th July, St. Petersburg - - - - -	+9″ 37
the 1st September, Copenhagen - - - -	+8″ 42
Arnold's, No. 1856, in April, in London - - -	−2″ 60
20th July, St. Petersburg - - - - -	−7″ 51
1st September, Copenhagen - - - -	−5″ 56
Pennington's watch, April, in London - - - -	+0″ 70
20th July, Petersburg - - - - -	+5″ 21
1st September, Copenhagen - - -	+1″ 83

On the 7th September, the wind allowed us to get into the outer road, where we found two Russian frigates, the one of 50, the other of 36 guns, under the command of Captain Crow, which had arrived that morning from Archangel.

On the 8th September, at five *p. m.* after taking our powder on board and hoisting in the boats, we weighed anchor and sailed with the Neva to Helsingör, where we arrived that night about eleven o'clock. At day-break we should have continued our voyage, but for a violent storm from the N. W. which kept us here six days. On the 15th September, the weather again became moderate, the wind at W. S. W. and consequently not very fair; I however determined, as the season was far advanced and every delay might be attended with unpleasant consequences, to put to sea; and at six in the morning we began to weigh. At seven we saluted the guard-ship and the fortress of Cronenburg with seven guns, and our salute was returned by an equal number. The wind was pretty high and the greater part of our company seasick. At two the next morning we

were already, by my reckoning, out of the Cattegat;* we neither saw the Scaw light nor that at Malstrand. On the 17th, we saw the Danish frigate Triton, which had sailed some hours sooner than us from Helsingör; she steered more towards the coast of Norway, probably for Christiansand. The weather had been for some days very hazy, with rain and squalls. The barometer fell by degrees to 29*in.* 20. and at one in the morning it fell even below 28*in.* when suddenly a violent storm arose, the wind shifting from S. W. to N. W. The ship heeled more than I ever witnessed before on board any other, which obliged us to take in all the sails and set the stormsails instead. About four *p. m.* we perceived the coast of Jutland, distant about 20 miles. During the storm we had parted from the Neva, and at day-break she was no longer in sight. The following night the storm abated a little, and allowed us by degrees to make more sail; the wind however still hung between W. and W. N. W. with which we could not well get out of the Scagerrak.† On the 19th at four *p. m.* we perceived the southernmost point of Norway, Lindenäo, which we call Derneus, the English Naze; owing to the wind we were however unable to weather it. In the evening it became more moderate. A strange phenomenon, which excited the attention of every body, seemed in the opinion of us all to be the forerunner of a fresh storm. From W. N. W. to N. E. about 15° above the horizon, appeared a bright bow from which hung dark clouds

* M. von Löwenorn, in the memoire which accompanies the chart of the Cattegat, expressly recommends that one should not venture into the Cattegat, particularly in autumn, except with a decided south wind, even when it is to the east of south; for the reason I mentioned above I could not follow this rule.

† Sleeve.

vertically like pillars; many of these aërial pillars could be distinguished by a white colour in front of the others. Until ten o'clock this appearance of the heavens continued to bear its first form, when it separated into two parts. The pillars rose to the zenith, the vapours of which they were formed becoming thinner, so that we could perceive through them stars of the second magnitude. There was a brilliant Aurora Borealis throughout the night, and perhaps the whole phenomenon may have been a species of northern light.

On the 20th, at noon, the Naze bore N. N. W. of us, distant eighteen miles. Towards evening the wind blew hard at E. S. E. with heavy rain; but was followed again in the morning by a calm. I had Hales's machine put over board, to ascertain the temperature of the water on the surface and at a certain depth; but as there was only twenty-four fathoms water, the difference was scarcely to be perceived. The barometer was again very low; it stood at 29 *in.* 16. The sea set in strongly from the northward. These two forerunners of a storm could not be mistaken, and indeed it came on about ten *p. m.* as violent as on the 18th September, only that it was in our favour. The following evening the wind abated; and on the 23d we had fine weather again. We this day fell in with an English fifty gun ship, bearing the flag of Commodore Sir Sidney Smith. He was cruizing with his squadron off the Texel; but none of his ships were in sight. The Commodore sent an officer on board to me with a very polite letter, wishing us a successful voyage. In the afternoon we perceived an English frigate, which probably mistook us for an enemy, as she bore down upon us under all sail: it was not, however, until nine that she came up with us. As I found that the

commander, Captain Beresford, was an old acquaintance, with whom I had served nine years in America, I immediately went on board him. One of his masts had been damaged in the last gale, which obliged him to make for Sheerness. I mentioned to him that our astronomer would be forced to go to London to procure some instruments which we still wanted, and he immediately offered to convey him on board his ship to Sheerness, where he expected to arrive the next day. I very thankfully accepted an offer which promised to save so much time, although it would necessarily carry us a little out of our course; for it was too late to send off Dr. Horner that evening, and I was obliged during the night to follow the frigate, which shaped her course towards the English coast. Captain Beresford's politeness went so far, that he sent me a pilot, of whom he had two on board, with orders that he should stay with me as long as I found it necessary. We continued our voyage together until the next morning, when the whole English coast at Orfordness lay before us. Captain Beresford now came on board, and took with him M. Resanoff, Dr. Horner, and Major Friederici, when we immediately parted company. By this opportunity I sent my nephew, a young lad belonging to the corps of marine cadets, to London, that he might return from thence to Russia. The bad state of his health, which had been uncommonly weakened by constant sea-sickness, made it impossible for him to continue the voyage farther with us.

As we had been obliged the preceding night to follow the Virginia, we were now between the English coast and a very dangerous sand-bank, called the Gallopers, upon which there is no mark whatever. It is usual to keep outside of this bank,

and without a pilot one should never venture to take the inner passage. At night the wind became directly adverse, which obliged us the next day to beat about between the north and south Foreland, and, as it fell calm towards the afternoon, and the tide which flows there out of the English channel was against us, we brought to with a small sheet anchor. The wind soon after shifted to the eastward, and we passed the same night through the straits of Dover.

On the 26th September, at four *p. m.* we crossed the meridian of Greenwich, from which I had proposed to myself to reckon our longitude westward during the whole of the voyage, as we were to sail around the globe from east to west. On the 27th, at nine *p. m.* we saw the Eddystone light; and about eleven o'clock, as we were but a short distance from the place of our destination, I shortened sail, and we stood off and on under our topsails until day break, when we saw the coast of Cornwall at a short distance ahead of us. We soon after saw St. Ann's, the eastern point of the entrance to Falmouth, and Pendennis Castle, which is the westernmost. At eight o'clock we anchored in the Carreck road, where we found the Neva, which had arrived two days earlier. Our westward anchor we cast in seven, and our eastward one in fifteen fathoms. The castle on the point of St. Maw's bears S. S. E. ½ E.

I immediately sent Lieutenant Löwenstern to the governor of the castle to announce our arrival, and to ask him, whether he would answer our salute with an equal number of guns? He sent me word that he would without fail. The next morning we saluted the castle with nine guns, and an English frigate,

which lay here, with seven; and she, as well as the castle, returned shot for shot.

My only object, in running into this port, was to provide the ships with a quantity of Irish salt meat, as I feared that neither the Russian, the Hamburg, nor the Danish would keep for three years. I intended to take a supply for six months on board both ships, as the want of room did not allow my laying in a larger stock. I had the Nadeshda, too, caulked here, as during the bad weather in the north sea the water had penetrated considerably through her sides.

As I was obliged to put into some English port, I gave the preference to Falmouth before either Portsmouth or Plymouth, and had reason to be satisfied with my choice, as we found here a plentiful supply of every thing which we wanted. We have particularly to thank Mr. Fox, a merchant of that place, for providing us so well, and I must do him the justice to say, that he treated us very liberally. We met, too, with great attention from General Cowell, who commanded the troops of the district, as well as from Lord Rolle, colonel of a militia regiment, which I cannot sufficiently esteem. During that time of uneasiness, England then appearing to be threatened with an invasion, they had fixed their residence here.

Falmouth possesses, notwithstanding its small size and the meanness of its houses, all the properties of an English town, which cannot fail to make a pleasing impression upon a foreigner. The difference, however, between this and the towns that I had an opportunity of seeing in the north-east part of

England, was very striking. The comfort of the lower class o inhabitants, which distinguishes England so much from the other countries of Europe, appeared here in some degree to fall off. It seems to me that the employment of the poor people, which chiefly consists in working the mines, is the cause of this want of comfort: the breeding of cattle is not much followed in Cornwall, and there are few other articles of commerce than minerals. However, as I did not go inland, and conclude generally upon that which I saw in the town, my opinion may perhaps not be quite correct.

Falmouth harbour is roomy and excellent. Large ships lie in the Carreck road, about a mile from the town. The packet boats which, as is known, sail from hence to America, the West Indies, and Lisbon every month, lie in front of the town. Their situation is perfectly secure, and there is no example of a ship having ever broke from her moorings. The anchorage ground is sand, under which is hard clay. One must, however, be careful with the flood, which sets in from the S. S. E. to heave out a second anchor, in order not to be driven on a steep bank, which lies to the northward of St. Maw's, near to which the westernmost anchor should be in seven fathoms water.

CHAPTER III.

PASSAGE TO THE CANARY ISLANDS AND BRAZIL.

The Ships leave Falmouth—Observe an extraordinary Meteor—Arrival at Teneriffe—Stay there—Remarks on Santa Cruz—Inquisition—Unbounded Authority of the Governor General of the Canary Islands—Astronomical and Nautical Observations at Santa Cruz—The Nadeshda and Neva sail to the Brazils—The Island of St. Antonio—Remarks on the Passage to the Equator—Fruitless Search for the Island of Ascension—Opinions on its Existence—Perceive Cape Frio—The Situation of this Promontory—Storm off St. Catherine's—Anchor between St. Catherine's and the Brazils.

THE wind was now favorable, and I waited with considerable impatience for M. Resanoff, who, at length, arrived at Falmouth early in the morning of the 5th. The same day we sailed at high tide from Carreck road with a fresh northerly breeze, which in a few hours veered to the eastward. At eight *p. m.* the lighthouse on the Lizard bore N. W. 38°, distant from us about twelve miles. At nine we lost sight of it, and at ten I altered my course from S. S. W. to W. S. W. The wind blew fresh without making much impression on the ship. The night was as fine as it could possibly be, clear and not a cloud to be seen. All the officers remained upon deck until past twelve. This beautiful night, on our entering the ocean, appeared to every one a good omen for our long voyage. To whom could this thought, this wish, which did not arise from any idea of personal danger, be so important as to me! I fancied that the eyes of the civilized part of Europe were fixed

upon me. The success or failure of our undertaking was to decide my reputation, and the latter would cast a shadow on my name, which would in some degree be extended to my country. Those who delight in censuring and vilifying Russia would have triumphed over an unfortunate event, and the first attempt, if it had failed, might for a long time have prevented any similar undertaking. The difficulties of the task I had in hand now struck my mind with greater force than ever, and at last I was only able to quiet my uneasiness by reflecting on the grounds which had induced me to engage in the voyage. It was my duty not to withdraw myself from an undertaking which, (I may here openly repeat it,) it had been said, would fall entirely to the ground, unless I undertook the charge of it; and for this reason it was my duty to obey. At the moment when I could no longer perceive the light upon Cape Lizard, I was overwhelmed by feelings which I had not the power to resist. I could not think of my wife, whose tender love for me was now the source of so much uneasiness, without the greatest affliction. At length these painful sensations gave way to the hope that the voyage would certainly have a successful issue. The idea, that I should increase the reputation of my country; the prospect, too, of that happy hour in which I should again see the darling of my heart and my child—these ideas restored me to firmness and composure.

The officers had been hitherto divided into three watches. I now gave the fourth to M. v. Löwenstern, to whom I would gladly have given one upon our departure from Cronstadt; but the lateness of the season, and the dangerous navigation of the east and north sea, rendered it necessary that there should be

more officers in every watch. As we were now in the open ocean, clear of all dangerous coasts and rocks, I made this alteration. I wished, too, to have divided the crew into three watches; but as it consisted of only fifty-six men, of whom eight did not keep watch, I deferred doing so until we should fall in with the trade-wind. There were hitherto no sick on board; for the food of my men was the very best which can be had at sea. Since we left Cronstadt, that is, in the space of nine weeks, they had had salt meat but eight or nine times; during the rest of the time the crew had always had fresh, or newly salted meat; they had besides beer every day, and while we lay at Cronstadt and Copenhagen fresh bread, and such a quantity of vegetables that their broth, in the opinion of all the officers, was more palatable than that of their own table. At Falmouth, too, I had laid in a quantity of cabbages, potatoes, carrots, and onions, sufficient for several weeks, so that my men now wore a much better appearance than when they came on board. Of clothes and linen, as well for warm as cold weather, they had an ample provision, and it gave me great pleasure to see an inclination to cleanliness in all of them. I examined them twice a week, took notice of their linen and clothes, and particularly of the cleanliness of their persons. One serious remonstrance which I made the first time to a few of them had its effect, and from thenceforward I never perceived any reason to find fault with them on this ground. I had therefore every cause to hope that I should be so fortunate as to preserve the health of my people.

I kept rather a more westerly course than is usually taken, to avoid Cape Finesterre, where, in all probability, we should

have fallen in with some English or French ships of war, which would have delayed us. The wind blew very fresh at S. E. and E. so that we seldom ran less than eight or nine knots.

On the 8th October we were in 44° 25′ latitude, and 12° 08′ longitude. The change of temperature in twenty-four hours was four degrees, that is to say, it had risen to 14°. We observed almost every evening the well known phenomenon, the illuminated sea, some spots appearing to be much brighter than the rest, and it seemed to be a composition of nothing but shining sparkles. On the 10th October we had a lunar observation, according to which, the longitude reduced to midday was 13° 30′ 15″; by Arnold's chronometer it was 13° 45′ 45″; our latitude was 38′ 40′ 10″. At eight this evening we saw a very extraordinary meteor. A fire-ball, which was so bright that the ship was quite lighted up by it during the space of half a minute, rose in the S. W. and ran in an horizontal direction towards the N. W. where it disappeared. The inflammable matter was so strong that a broad clear line was visible in the same direction a whole hour afterwards. Dr. Horner measured the height of this line from the horizon, and found it to be 15°, its width about ½°. It was near Sagittarius that Dr. Horner first saw it rise, and it vanished near the northern crown. These fiery meteors are, indeed, often seen; but that a light line should be so long visible in their course has perhaps not been so frequently remarked. Our latitude at the time was 37° 40′, our longitude 14° 05′.

The next day we lost our fine east wind, which we had hoped

would have held until we fell in with the trade-wind. Towards evening it became perfectly calm. The clouds were very black above the horizon; distant thunder and lightning announced a storm, which came on towards one in the morning, but did not last long. In about an hour the weather again cleared up, and the wind sprung up fresh from the W. S. W, and continued to blow from that quarter for some days, accompanied by a heavy sea from the S. W. On the 13th we had another calm, and I took this opportunity to lower the boat, in which Drs. Horner and Langsdorff put off to try the temperature of the sea with Hale's machine. The warmth of the air was 18°, on the surface of the water it was 19½°, and at the depth of 95 fathoms, where the thermometer remained 18 minutes, 19°. The water at this depth, examined with a microscope, was perfectly clear.

As the weather had been very damp for some time past, I made the men light a fire in their birth almost daily, and hang out their clothes and beds to dry, whenever there was any appearance of sunshine. On the fifteenth, in the night and following day, the ship was considerably tossed about by a heavy sea, which set in from the N. W. although there was scarcely any wind. We saw a number of large fish of the dolphin species, about twelve or fifteen feet long, swimming round the ship, some to the S. W. others in an opposite direction. At five *p. m.* the wind shifted towards the N. E. and blew pretty fresh; but the sea still set so strong from the N. W. that we made no more than four knots an hour; nor did this roll of the sea abate until the next day.

As we were now approaching the place of our destination,

I allowed the men a cask of fresh water to wash their linen. I mention this otherwise insignificant circumstance, to shew the great economy necessary with the fresh water on board ship. Every man was suffered to drink as much as he pleased; but I never suffered a drop to be taken for any other purpose, without my express permission.

On the 18th, at noon, we had an observation in 30° 08′ 15″ latitude, and 15° 01′ longitude. About five in the afternoon the Savage islands were seen from the mast head, bearing N. N. E. distant about twenty-two miles. At half past six the next morning we distinctly saw the island of Teneriffe, and at seven the Pic cleared itself of the clouds in which it had been enveloped until then, and appeared to us in all its majestic grandeur. As its summit was covered with snow, and was extremely brilliant from the reflection of the sun, this contributed very much to the beauty of the scene. On either side, to the east and west, the mountains, which nature seems to have destined to sustain this enormous mass, appeared gradually to decline. Every one of the mountains which surround the Pic, would be considerable in itself; but their height scarcely attracts the attention of the beholder, although they contribute to diminish the apparent size of the Pic, which, if it stood alone, would be much more striking.

I now steered for the N. E. point of the island, but the wind blew so hard at E. that I had very little hope of coming to an anchor this day at Santa Cruz. In the afternoon we perceived a French frigate between us and the Neva, which had an opportunity of speaking with her. There was nothing to recommend

her in her outward appearance, which, on board our ship, was the subject of severe criticism: but we learned at Santa Cruz, where she also put in, that she was not a ship of war, but belonged to an individual, who had fitted her out as a privateer, and that she had already made several prizes, which were to be sold there. In the evening, about five o'clock, we were very near Punto de Nago, the eastward point of Teneriffe; but as great caution is necessary in anchoring at Santa Cruz, I determined to stand off and on during the night between the islands of Teneriffe and Canary, and the next morning, at eleven, we sailed for the road. Don Carlos Adam, lieutenant of the Spanish navy and captain of the port, came immediately on board, and recommended us to keep to the eastward of the road as the best place to anchor, where we brought to in thirty-six fathoms water. The ground is not so rocky here as it is in other parts of the road, nor are there so many lost anchors on the ground, which are frequently the occasion of other ships being obliged to leave their own.

The Neva, which lay more to the S. W. lost a sheet anchor and two cables, owing to this cause, while the Nadeshda's cables did not suffer in the least. It is, however, necessary to take the precaution of buoying them up with casks to keep them floating in the water: I would recommend this situation in preference, notwithstanding the great depth of water, and will therefore give the exact position of the ship after we had let go our other anchor to the N. E. in twenty-four fathoms water. Punto de Nago, the N. E. point of the road, bore N. E. 69°; the S. W. point of the island S. W. 36°; and the church of St. Francis, which is distinguished by a very high

tower, S. W. 51° 30'. There is indeed this disadvantage attending the situation, that should a storm spring up at S. W. and a ship not like to ride it out in the road, it would be very difficult for her to beat out. Violent storms, however, are not common even in winter, and if the anchor and cable can be depended upon, it is better to remain in the road. The Spaniards indeed moor with four anchors, two to the N. E. and two to the S. W.; but in this they stand alone, and perhaps only do so, because of an ancient law which obliges them to it.

As soon as the ship had let go her anchors, I sent my fourth lieutenant, M. von Löwenstern, to the Governor, to request his permission to complete our water, and to lay in a stock of fruit and wine for the voyage, a request which he very politely acceded to. As I knew several instances of English ships of war offering to salute the fort, and meeting a refusal to return the compliment with an equal number of guns, and of many of them having, besides, received a mortifying answer, I would not expose the Russian flag, which now waved here for the first time, to the affront of being refused that which it had a right to demand, and therefore said nothing on the subject.

At four in the afternoon the Deputy Governor (Teniente del Rey) came on board with one of the Governor's secretaries to congratulate the ambassador, who had already been on shore, and the officers of the ship, on their arrival. An hour afterwards I went on shore with Captain Lisianskoy, and some of the officers of my ship, to wait upon the Governor, the Marquis de la Casa Cahigal. He was a very polite man, and disposed to afford us every assistance that we might stand in need of;

and he had the goodness to give up the house belonging to the Grand Inquisitor, which had a belvidere, to our astronomers. Dr. Horner immediately sent two chronometers, a sextant and stand, and a false horizon there; but he could not avail himself of this house, as the tower was not steady; and he only succeeded, with difficulty, in taking a few good altitudes for the determination of the latitude and longitude by the watches. He could not, however, make any uninterrupted observations to regulate their rate of going.

On the day that we arrived, a packet came in from Corunna, and brought the Governor an order to give us a favorable reception. He delivered to us a copy of this order of the King's, that in case we should arrive at any of the Spanish possessions before the similar one which had been sent to them, we might be certain of being well received.

Although the Governor had offered to provide us with every thing, I rather preferred applying for what we wanted to Mr. Armstrong, a merchant of this place, to whose partner in Orotava, Mr. Barry, I had letters. He supplied both ships with all that we stood in need of, and without his assistance we should certainly have been detained a longer time here, and even then have not been so well provided. His hospitality equally claims our thanks. He received the ambassador into his house; and whoever, belonging to the ship, called there, was kindly received, found a well provided table, and a pretty large party; which, with the amiable manners of Mrs. Armstrong, and some young French ladies from the Isle of

France, rendered our stay, in this otherwise dreary and melancholy place, very agreeable. Dancing, playing, and good humour are not very common among the serious Spaniards. Such are the strange and imperfect notions which foreigners have of Russia and the Russian nation, that they seemed astonished to find that these Hyperboreans could bear a comparison, and not a disadvantageous one, with the most cheerful inhabitants of the south of Europe, while in education and good breeding they were by no means behind them. The officers of both our ships fully confirmed this opinion.

It was my intention not to have remained here more than two or three days, but my agent gave me no hopes of getting away under five. M. von Resanoff determined therefore to go, with the naturalists belonging to the ship, to Laguna and Orotava, to visit a botanical garden, which the Marquis de Nava had formed at the latter place. Several plants from tropical countries, but particularly from South America, have been transplanted to this garden, to accustom them to a more temperate climate, in order that they might afterwards be removed to Spain with a better chance of growing there. This admirable plan does great honour to the patriotic feelings of the Marquis de Nava, who has expended upon it a part of his very considerable property. At first it met with the King's approbation; but the attention which it deserves is now no longer bestowed upon it. Another object of this journey of our naturalists was to see a large dragon-blood tree (*sanguis draconis*) in the neighbourhood of Orotava, the trunk of which, ten feet above the ground, was thirty-six feet, and near the root forty-five feet, in circumference.

Santa Cruz is by no means a handsome city, but it is not unpleasantly situated. The houses are large and very roomy within; the streets narrow, but well paved. On the beach the late Governor, the Marquis de Branciforte, made a public walk, consisting of some rows of trees, at the expense of the inhabitants, to which they have given the name of Alameda. As it is, however, scarcely a hundred fathoms in length, it does not answer the purpose very well; besides, there is a sentinel at the entrance, who frequently turns away those who wish to enjoy it, notwithstanding it was made at the public expence, and is kept up in the same manner. Mr. Barry, the merchant, although he resides in Orotava, is obliged to pay one hundred piastres yearly for this purpose; as I was assured by Mr. Armstrong. In the great square there is a well sculptured marble pillar, erected in honour of the Virgin Mary de la Candelaria. It is adorned with emblematic figures, which are said to be the work of a skilful statuary. The Guanches,* I was told, had found, at the time of the conquest of the island, the virgin Candelaria, with a crucifix in her hand, in one of the caves, of which there are several in the mountains. This wonder, which perhaps, the first conquerors found necessary, in order to persuade the poor Guanches to adopt the Christian religion, certainly deserved to be commemorated at the end of a philosophical century with so much pomp and talent! Opposite to this pillar is the fort of St. Christopher's, where Lord Nelson in the last war, when this too daring hero attempted the conquest of Santa Cruz, lost his right arm, and Captain Bowen

* The Guanches were the original inhabitants of Teneriffe. The race is now extinct.

his life. It would have been more proper, I should conceive, to have eternized by an obelisk the memory of that victorious day, when the brave inhabitants of this island obliged the courageous Nelson to retreat, than, by erecting this monument, to endeavour to give the stamp of truth to an absurd fable.

The general misery of the people, depravity in the highest degree of the other sex, and swarms of fat monks who stroll about the streets as soon as it is dark; these are the characteristics of Santa Cruz, and strike the stranger, unaccustomed to such sights, with pity and disgust. There is no place in the world where so many horrid objects are to be seen. Beggars of both sexes and of all ages, clad in rags, and afflicted with every kind of disgusting complaint, fill the streets, together with lewd women, drunken sailors, and lean and deformed thieves. I am almost tempted to believe, that the lower class of inhabitants here, have all an equal propensity to stealing. A person might fancy himself transported to one of the islands of the South Seas; for he is robbed in spite of the greatest attention and precaution. Whenever a boat came along side the ship, some theft was infallibly committed in the presence of the whole crew, and I was at last obliged to prevent any body from coming on board.

The Inquisition is introduced here as in all the possessions of the Spaniards, and, as I was assured, in all its vigour; its chief residence is in the island of Canary. It must be miserable indeed for a free spirited man to live in any place where he is exposed to the caprice of the Inquisition, and of a governor who has an unlimited power of life and death over every citi-

zen. Until now, the governors of Teneriffe, who are at the same time viceroys of the Canary islands, had not this unlimited authority; but Mr. Armstrong told me that this increase of power was brought over to them by the packet which arrived at the time we did. I could not learn what had induced the government to take this step. Indeed, such unbounded power in the hands of an enlightened and liberal minded man, as the Marquis de Cahigal was said to be, would not be dangerous; but who can assert that some despotic minion may not at a future period fill this station! An idea may be formed of the liberty of the citizen here, by the circumstance that no man dare go into the roadsted, even to pay a visit, without the permission of the Governor.

The season was already considerably advanced; but we found here an abundance of grapes, peaches, citrons, oranges, melons, onions, and potatoes: every thing was, however, extremely dear. Even the price of wine had risen very much within a few years; for I paid ninety piastres the pipe for what used to be but sixty. This wine is very good, and improves on a long voyage, although it is by no means equal to Madeira. As the bad kind of wine was but fifteen piastres cheaper than the best, I bought only the latter for the use of the men. The brandy which is made here is very bad, and is only used in Spanish America, as it would not be drank in Europe. Beef was dear, and cost eight pence sterling the pound; for a very moderate sized sheep we paid seven piastres, and for a fowl one. To all these prices must be added at least twenty per cent. commission. Every cask of water cost us likewise one piastre.

The mean of the several observations which were taken in the road, made the latitude of our anchorage to be 28° 27′ 33″ N.
The longitude by Arnold's large watch, No. 128 = 16° 12′ 45″ W.
The true longitude, as settled by the Chevalier de Borda and M. Varila - - - - - - - - - - - - - 16° 15′ 50″ W.
On the 27th October, No. 128 was earlier than mean time at Santa Cruz - - - - - - - - - - - - - - 0*h*. 24′ 56″.
Its daily rate of going - - - - - - - - - - + 11′ 4″.
No. 1856 was, on the 27th October, earlier than mean time at Santa Cruz - - - - - - - - - - - - - - - 0*h*. 0′ 7″.
Its daily rate of going - - - - - - - - - - - — 7″ 5.
Pennington's watch at the same time was earlier than Santa Cruz - - - - - - - - - - - - - - - - - 0*h*. 07′ 17″.
Its daily rate of going - - - - - - - - - - + 5″ 3.
The mean of several results of mid-day and circum-meridian altitudes, which Dr. Horner took on the house belonging to the Inquisition, made the latitude of this house, which may be considered as the center of the town - 28° 28′ 20″ N.
The longitude by No. 128 - - - - - - 16° 13′ 42″ W.
The variation of the compass by the mean of several azimuths taken with two different compasses, was - = 16° 01′ 30″.
In the year 1792 it was - - - - - - - - 16° 32′ 00″.

Dr. Horner made no observations on the dip of the needle, because as I intended to have sailed from hence some days earlier than I afterwards found it possible, I did not send the inclinatorium on shore. The attempts, indeed, made by La Perouse have proved that no satisfactory result is to be expected from any observation here, which he ascribes to the quantity of iron contained in the soil of Teneriffe. The ther-

mometer was at the highest on the day of our departure, rising to 22°; during our stay here it had never fallen below 19½°. The barometer had varied very little, seldom more than two-tenths of a line. Its ordinary height was 29*in.* 90, and 29*in.* 92. By the observations which De Fleurieu instituted here in 1769 upon the ebb and flood, the time of high water is at three o'clock in new and full moon. The tide rose twelve feet in the syzigiæ, and six feet in the quadratures.*

About six in the evening of the 26th October, we received the last supply of necessaries on board; but as it was dark, and the land wind had not yet sprung up, I determined not to sail this evening, and I did so the rather as I learned that the Governor intended to come on board the next morning. At nine o'clock we had the pleasure of a visit from him, accompanied by a pretty considerable suite of civil and military persons. On his quitting the ship I saluted him with nine guns, and the fort returned this compliment with a like number.

About twelve at noon, on the 27th, we weighed with a pleasant southerly breeze. A cartel for Gibraltar set sail at the same time, as did a Spanish ship which had arrived that morning from Malaga, and was destined to the Rio de la Plata. The captain of the latter vessel wished to have landed his sick, but the Governor would not permit him, and he was obliged to proceed on his voyage in this melancholy condition.

* Voyage fait par ordre du Roi en 1768 et 1769, par M. d'Eveux de Fleurieu, tom. I. p. 288.

The farther we sailed from Santa Cruz the more the wind got to the westward; in the evening it shifted to the N. E. blowing directly off the land; but it did not hold in this quarter longer than till the next morning, when it again veered to the south. I steered the whole night S. S. W. as long as the wind permitted. The next morning the S. W. point of Teneriffe bore N. W. 35°, our latitude at that time being 27° 07′. Towards evening the wind became westerly, drawing more and more to the northward. At six the next morning we still saw the Pic from the deck; it bore by compass N. E. 15° 30′, that is, allowing for the variation, which is here 16° W.; N. W. 0° 30′. At noon we had an observation in 26° 13′ 51″ latitude, and 16° 58′ 25″ longitude. Between six in the morning and noon we had lessened our latitude 21′ 54″, and increased our longitude 19′ 15″. The ship was consequently at the time we saw the Pic in 26° 35′ 45″ latitude, and 16° 39′ 10″ longitude; and as, according to Borda and Pingré, the Pic lies in 28° 17′ N. latitude, and 19° 00′ W. longitude of Paris, or 16° 40′ of Greenwich, we must have seen it at six o'clock at the distance of 101 miles, and due north of us, in which direction it in fact bore. In very clear weather the Pic may be seen 25 miles farther off from the mast head; but this is the greatest distance which it is visible even from that height, and under the most favorable circumstances. The elevation of the Pic has been determined by several observations. Borda's calculation, which is founded on a geometrical admeasurement, and is conceived to be the most correct, makes it 1905 toises, or 11430 feet.

I steered S. W. by W. and shortly after W. S. W. as I wished

to keep clear of the Cape de Verd islands, and not see any of them, except the island of St. Antonio. The Spanish ship, which had sailed with us from Santa Cruz, we lost sight of towards the N. E.; the weather was cheerful and fine, the wind at N. W. I had the cables cast off from the anchors, in order to dry them thoroughly and stow them away; and I divided the crew into three watches, and although fifteen men were, considering the size of the ship, too few for active service, I trusted to the weather and the steadiness of the trade-wind. During the remainder of the voyage however, even with the most unfavorable weather, the men continued in three watches.

On the 2d November, with a gentle northerly breeze, the sea rolled so high from the N. W. that the ship was very much tossed about by it, and we concluded that a very heavy storm had been raging to the N. W. near the Canary islands. The wind varied between N. N. W., N. and N. E.

On the 6th November, at day break, we perceived the island of St. Antonio at the distance of from 25 to 28 miles. As the wind was moderate, I held directly to the westward, to keep still more away from the land, as calms are very frequent in the neighbourhood of lofty islands. At noon we had an observation in 17° 55′ latitude. The S. W. point of the island bore at that time S. E. 24°, distant about 45 miles. I now steered W. S. W. and as the wind freshened towards the evening, S. W. by W. The next day at noon the S. W. point of the island St. Antonio bore 86°, distant about 54 miles; and I again held S. S. W.

The mean of a variety of lunar observations taken this morning, made our longitude, reduced to mid-day, 26° 17′ 07″. By the watches it was 26° 24′ 40″. I reckoned the longitude of the S. W. point of St. Antonio by Arnold's large timepiece, No. 128, the best of our Chronometers, 25° 24′ 00″. The variation of the needle we found to be 15° 06′ W.

The passage to the westward of the Cape de Verd islands certainly deserves the preference over that to the eastward; as experience has shewn to all navigators, that to the westward a fresh trade-wind prevails, while to the eastward there are frequent calms. Indeed, very few examples exist of navigators sailing between the Cape de Verd islands and the coast of Africa. I should therefore recommend all those who, on their passage to the equator, take the westward course, to steer in such a direction from the Canary islands, as to cross the parallel of 17°, or the parallel of the island of St. Antonio in 26½°, even in the 27° of longitude, and then to steer S. E. by S. directly to the equator. By this means they will entirely avoid these islands, which are of sufficient magnitude to alter the direction of the trade-wind, for it frequently happens that S. W. winds are met with here. Even if this should not be the case, the wind is always very moderate in their vicinity, and it cannot therefore be of much hinderance to steer 1½° more to the west than the course lies, when it is with the certainty of keeping a steady wind. If however it be necessary to have sight of the island St. Antonio, in order to correct the ship's reckoning, this may be done at a distance of 30 miles. At all events, especial care must be taken not to come within 20 or 25 miles of it, as there is otherwise a danger of being

driven, either by storms or by calms, too near the land. As I was going to the Indies in the year 1797, on board the English line of battle ship the Raisonable, we experienced the danger of sailing too near this island; and even in this voyage we were made aware of its vicinity, for in the night, previous to our seeing Antonio, it suddenly became calm; but as soon as we withdrew from the land, the wind freshened. Although we had lost sight of the island, and were in 27° of longitude, the wind blew very moderately from the south and east. I waited now with impatience for the true N. E. trade-wind, that I might return to the eastward, which I proposed to do for about 20°, in order to keep clear of the southerly winds and strong eastward currents, which are found in the regions between the N. E. and S. E. trade-winds, and I wished, too, not to cross the line more to the westward than the 24° or 25° of longitude. Ships have been driven, when crossing the line in a more westerly direction than the 25° and 26°, by strong currents and a too southerly trade-wind, so near the coast of Brazil as not to be able to clear Cape St. Augustin. If the wind, however, will allow the passage of the line in the 20° or 21°, a ship must not fail to do so, as she has then the advantage of a directly free wind as soon as the S. E. trader sets in, and, of course, of getting quicker to the southward. This, however, is rarely possible.

Our naturalists made several experiments to-day to ascertain the cause of the sparkling of the sea, the result of which seemed to prove that it is not merely occasioned by the motion of the water, but is in fact produced by organized beings. They took a dish, over which they spread a fine cloth doubled,

and poured the water on it, as it was taken out of the sea. It then appeared that several spots remained on the cloth, which glistened as soon as it was shaken, while the water which had passed through it did not seem in the least impregnated with phosphorus, although mixed with sawdust, to replace the want of the matter, which was now separated from it, and might have been supposed to have given the sparkle to the water when in motion. Dr. Langsdorff, who examined these fiery bodies with a microscope, and has made drawings of several of them, found them to be, particularly the larger ones, in the form of crabs, and in the small ones he observed fibres, evidently denoting organization. But as this experiment with the microscope was not made until the next morning, it still remained uncertain whether these animalculæ were alive at the time of emitting the light, or were already in a state of putridity; nor could we ascertain the exact influence of the atmosphere on the brilliancy of these insects, as they are not every day of an equal brightness, or whether this does not perhaps arise from a greater or less degree of electricity in the air, or is only produced by the friction occasioned by the motion of the ship, and does not exist when the water remains in a tranquil state. At the end of this work will be found an ample treatise on this subject by M. Tilesius.

On the 10th November, in 13° 51′ N. latitude, and 27° 07′ W. longitude, we fell in with the N. E. trade-wind. It was still, however, considerably to the eastward, namely, E. by N. and E. N. E. We held, therefore, as much as we were able to the S. E.; and this was the more necessary as we had to work against a strong current, which threw us back nearly 20 miles

a day. On the 15th at noon, when we were in latitude 6° 58′ N. and 21° 30′ W. longitude, the whole sky became overcast. About two we had some rain and a squall of wind, that continued with considerable violence during two hours. Throughout the night it was very thick with little wind. We now found ourselves on the borders of the trade-wind, which after this squall we had entirely lost, and entered into the regions where are found unsettled, and, for the most part, directly contrary winds, calms, or constant violent squalls, accompanied by heavy showers and a hot damp air, as oppressive as it is injurious to the health. Several days passed in which we did not get sight of the sun, so that the men could neither dry their clothes nor bedding. The thermometer was constantly between 21° and 23°, the air damp and sultry; yet with all the uneasiness this occasioned me for the health of my people, I had not a single invalid during the whole of this time. Every possible precaution, indeed, was adopted: I had fires lighted three or four times a week in the hold, which were kept in during several hours, and which is undoubtedly an excellent method of drying and purifying the air. At Teneriffe I had laid in such a stock of citrons, potatoes, and pumpkins, that our supply was not exhausted even on our arrival at St. Catherine's. Instead of brandy I gave the men a pint of the best Teneriffe wine, and in the morning and evening I had some weak punch made very sweet, but at the same time with a great deal of citron juice mixed in it. We availed ourselves of every moment of sunshine to dry and air the clothes and bedding. The constant rain, during which we had caught enough water for a fortnight at least, gave our people a good opportunity to

wash their clothes; and I had a large awning spread, entirely for their use, between the fore and main masts. It was, indeed, not a little amusing to see fifteen or twenty men together under this awning, which looked like a little lake, washing one another, after they had first washed their clothes and linen. The heat, too, did not appear to affect them so much as I expected. The thermometer was seldom much under 23°, and yet many of the sailors would ask, when the hot weather was to come on? so much had they been told of the extraordinary heat. Our Russians therefore seem capable of bearing either extreme, and to think no more of 23° of heat than they do of a like degree of cold.

This disagreeable heavy weather continued during ten days, in which time we had only advanced about 2° to the southward; for we had to struggle against a very strong current, that drove us back daily about 15 or 18 miles. At the end of the ten days we had again a fresh north wind, which lasted nearly twenty-four hours, when it veered to the S. E. and settled in that quarter as the true trade-wind; we were now in 2° N. latitude, and 23° W. longitude.

On the 22d November we saw a ship steering (close hauled) to the eastward. I conceived she was going to Europe, and wished to take this opportunity of writing to Russia. I sent an officer with my letter on board. She had, in the mean time, hoisted American colours, and I learned she was destined for Batavia. Notwithstanding his voyage was to the southern hemisphere, the captain kept my letter with a promise to for-

ward it to Europe from the Cape of Good Hope, where he was to put in.* His longitude was very different from ours, being more than 3° too westerly, which had induced him to hold so much to the eastward. I sent him the longitude given by our watches, with the assurance that he might fully depend upon it; but he did not alter his course, and sailed all night in company with us; the next day we, however, nearly lost sight of him.

On the 26th November we crossed the equator at about eleven in the morning in 24° 20′ W. longitude, after a passage of thirty days from Santa Cruz. Under a salute of eleven guns we drank the health of the Emperor, in whose glorious reign the Russian flag first waved in the southern hemisphere. The usual farce with Neptune could not well be represented, as there was nobody on board the ship, except myself, who had crossed the equator. One of the sailors, however, who had a talent for spouting, and was rather a wag, was adorned with the trident to welcome the Russians on their first entrance into a strange boundary; and he played his part as well as if he had long been devoted to the sea-god.

I now directed my course towards the island of Trinidad; the wind was, however, so much from the southward, and the current at the same time set so strong to the west,† that we had crossed the meridian of Trinidad in 7° of S. latitude. The

* This letter reached its destination punctually in the month of May, 1804.

† The direction of the currents, from the equator to the eighth degree of latitude, was S. W. by W. and W. S. W. running from 26 to 35 miles a day.

wind soon freshened and got more to the eastward, so that we made a rapid advance, and I steered as much to the southward as it would permit. The westerly current still flowed indeed; but it had much less force than near the equator. In 14° latitude we lost the S. E. trade-wind, and had E. winds, which by degrees veered to N. and N. W. During the whole time that the trade-wind lasted, we were accompanied by an infinite number of bonitos, and harpooned some of them almost daily. They made a fresh and palatable dish for our people. We caught but one shark, part of which was eaten, although it was not so good as a bonito. Our Japanese, however, ate the head, and seemed to relish it much.

La Perouse spent several days in searching for the island of Ascension, (on the existence of which so many different opinions have been entertained during the last 300 years,) between the parallels of 20° 10′ and 20° 50′ S. latitude as far as 7° W. of Trinidad, but without falling in with it. He had therefore justly entertained some doubts upon its existence, and whether it might not be one and the same with the island of Trinidad, as it is said to be in the same latitude; an opinion which had already been maintained and combated by many. Frezier, for example, in the account of his voyage to the South Sea, blames the celebrated Halley for leaving the island of Ascension out of his charts, and affirms, that he had himself landed upon it, although it was the island of Trinidad, as Halley, in the defence of his chart, very clearly demonstrates. As many opinions, however, were still in favour of the existence of this island, I resolved to sail some degrees more to the westward than La Perouse, in order to place its reality beyond a doubt,

or to increase the probability of its non-existence; and I felt myself the more called upon to attempt this enterprize, as the editor of La Perouse's voyage appears to throw some blame on that navigator for not having sought longer for the island of Ascension, and affirms, that he dropt the search at the moment when he must have been near it. Milet Mureau grounds his assertion in the first place on this: that Daprés has determined the longitude of Ascension to be 38° W. of Paris, and that Perouse did not sail so far; secondly, in that he had lately met with a French naval officer, M. Lépine, who, in 1791, had touched at both islands, and had found the latitude of Trinidad to be 20° 22′, that of Ascension 20° 38′. Lépine was not, indeed, provided with instruments to determine the longitude of Ascension, but had stated its distance from the coast of Brazil to be 120 leagues, or 360 Italian miles. This last authority appeared to me of importance; yet it struck me as singular, that Lépine, even though he were unprovided with astronomical instruments to determine the longitude, should not have given the public some information concerning an island, on whose existence so many disputes had been maintained; and particularly, whether it bore any resemblance to the description and the charts given of it by Daprés, Dalrymple, and several others. It would then only have been necessary to have followed in the parallel of 20° 38′ until we had met with it.

On the 7th December, at noon, we were in 19° 47′ latitude and 32° 24′ longitude, that is to say, 2½° more to the eastward than La Perouse had gone in search of Ascension. I could therefore sail through the night without fear of missing the

island, and held my course in such a direction, that, at day-break, I must have got into the latitude given by M. Lépine, when I intended to steer a direct westward course. At noon we had an observation in 20° 47′; a current had driven us some miles more to the southward than 20° 38′; but the weather was so very clear, that we must infallibly have seen 12 or 15 miles even from the deck. An island, lofty as that of Ascension is said to be, must surely have been seen at double this distance from the mast head, and it was impossible to have missed it, had it been in this latitude. In the evening, at about seven, I laid by; the ship's latitude then being 20° 41′, her longitude 35° 36′. At day-break I continued my course under all sail to the westward. At noon we had an observation in 20° 46′ 51″ latitude, and 36° 19′ longitude. The Neva was about three miles more to the northward. My attention was excited to the highest degree, and I expected to hear every moment from the mast-head, that land was to be seen; but in vain. In the evening, about seven, I gave over all farther search for this island. The ship's latitude was then 20° 42′, her longitude 37° 00′ from Greenwich, or 39° 20′ from Paris. We had now therefore sailed 2° 10′ more to the westward than La Perouse, and 1° 30′ in the same direction more than Daprés has given, as the longitude of Ascension. As, during this search, I had never departed more than nine miles to the southward of the given latitude of this island, as will be perceived by the foregoing account, I can venture to assert, that the island Ascension is not to be found between the parallels 21° 10′ and 20° 30′ to 37° 00′ W. of Greenwich, and that its distance cannot be more than 220 miles from the coast of Brazil. It appears to me therefore very problematic, whether M. Lépine really did touch

at this island: and, in case he did, its latitude has certainly not been correctly given by him. This is scarcely to be expected from a French naval officer. Without absolutely deciding for the omission of this island from the charts, I must be allowed to remark, that La Perouse had much more right to doubt its existence, than the editor of his voyage so positively to maintain the contrary.

I left the re-discovery of the island of Ascension to a more fortunate navigator, and steered for Cape Frio, of which I wished to get sight, to assure myself thoroughly of the latitude of this promontory. After having examined the latest charts and voyages, I found, to my no small astonishment, that the different latitudes assigned to it vary from 23° 06′ to 22° 34′. By the work called "La Connoissance des Tems," it has been for many years fixed at 22° 02′, as well as by the "Dictionnaire Maritime of Grandpré." In the original account of Lord Macartney's embassy, the latitude of this Cape is given at 32° 02′; but this is evidently a misprint for 23° 02′. This is, indeed, the most correct determination.* The French translator of Lord Macartney's voyage has but ill corrected the mistake by changing 32° 02′ into 22° 02″, and from this translation the fault in the "Connoissance des Tems," and in Grandpré's work, probably arose. No one would have ventured to give the latitude of Cape Frio thus at random, during thirty-five years, if Cook,

* Captain Broughton makes the latitude of Cape Frio 22° 59′ 41″ and 41° 53′ 12′ W. In Mendoza's tables, which, as well as Broughton's journal, were both published since my departure, the latitude of Cape Frio is set down 22° 54′, and its longitude 42° 08′ 15″.

in the account of his first voyage, had more expressly mentioned it; nevertheless, by consulting the astronomical observations which Wales has published on the voyages of Byron, Wallis, and Carteret, as well as on Cook's first voyage, it would have been found, that, on the 12th November, 1768, the day on which Cook perceived Cape Frio, the latitude at noon was observed to be 23° 06′; and as Cook expressly says, that he, on this day, sailed to Rio Janeiro along the coast, which lies nearly east and west, the latitude of Cape Frio could not possibly be very different from that of noon. For my own part, I had no doubt that the latitude must be 23° 02′, as Sir Erasmus Gore had determined it to be, and as it nearly must have been by what I have stated of Cook's first voyage. I had hopes, however, of being able to determine it within a few minutes, if we should succeed in getting within the parallel of this promontory, at the time the sun was in the meridian.

On the 11th December we had an observation in 22° 36′ latitude, and 40° 40′ longitude. In the evening, about seven o'clock, I sounded, and found 50 fathoms water over a rocky bottom. At day-break we saw the island of Frio, which lies near Cape Frio, and is easily distinguished by a deep valley which divides the island into two equal parts, so that at a distance it might without difficulty be taken for two islands. At noon the middle of the island of Frio bore due west, precisely as I wished; but the sky was so overcast, that the sun was not visible, and my endeavours were of course frustrated. In the afternoon the weather cleared up, and the ship had scarcely any motion. Under these favorable circumstances, twelve azimuths of the sun were taken to determine the variation of the

compass, which was from 2° 21′ to 3° 06′; the mean is therefore 2° 49′ E.

On the 13th December we were by observation in 23° 11′ 45″. Cape Frio bore N. W. 53° 20′, distant from 25 to 30 miles. Assuming this as the distance, the latitude of Cape Frio would be 22° 57′ 30″ S.; but I do not consider this as to be depended on, being founded on such very uncertain data. The longitude of Cape Frio, I conceive to have been better determined. By the rate of the largest Arnold watch, No. 128, reduced from St. Catherine back to the 13th December, the longitude of this Cape will be 41° 32′ 00″ W.; by the true longitude, as taken on this day, 41° 36′ 30″.

In the evening, at seven o'clock, I took my point of departure from Cape Frio, which, at that time, bore N. W. 10°, 18 or 20 miles off. I now held my course directly for St. Catherine's: the weather was delightfully clear with a fresh wind at N. E. so that on the 16th in the evening, at about eight o'clock, we had ground with a line of 40 fathoms. I tacked during the night, and the next morning we saw the islands of Alvaredo and Gal. The weather was thick and gloomy, and prevented our seeing the island of St. Catherine's. Having no detailed chart of this coast, nor any views of the islands lying at the entrance to St. Catherine's, and, consequently, not being able to determine whether what I saw was Alvaredo and Gal, I could not venture between these rocky islands, but steered, in the hopes that the meridian of the sun would remove my uncertainty, to the northward. The observation, however, failed at noon, and the weather continued thick, with heavy rain and a

fresh wind. I was therefore obliged to remain in the vicinity of the coast, in expectation of clearer weather.

On the 18th we were by observation in 26° 53′ 39″ S. and this induced me to steer a southerly course, near enough to the land, to have a distinct view of the bays and rocky islands lying along it, which must certainly afford the most beautiful harbours, and cannot fail to be known to the Portuguese, although I very much doubt whether any accurate survey of the coast of Brazil has ever been made by them. The charts we found at St. Catherine's, of the island and of the coast to the northward, had no great claims to accuracy, although one of them was made by the Portuguese geographer, Lopez; and others, even in the current year, by a Portuguese engineer. In the first, the astronomical designations were incorrect; and in the others, though they entered into minute details, and appeared to have been made with great attention, they were wanting altogether. The chart No. 3. in the Atlas, gives a correct draught of the north entrance to the anchorage, between the island of St. Catherine and the main land, as well as of the islands which lie in front of this entrance, and of the small portion of the coast to the north of the island, which, during the last few days, we had an opportunity of seeing. These charts, perhaps, will not be considered as quite superfluous, as I never saw any similar ones, except No. 57 in the second volume of Bellin's collection, "Le Petit Atlas Maritime," which however is very incorrect.

About four in the afternoon the wind subsided entirely, and the sudden falling of the barometer announced a storm. The

nearness of the coast gave me at first some uneasiness: the wind, however, rose from the land with a violent thunderstorm and rain, and blew so hard as to compel us to take in all sail, except the storm and foresail. The next day at noon the wind again abated and enabled us again to set our topsails. I once more steered towards the coast, which we saw at day-break of the 20th, and found that the southerly current had driven us so much to the northward, as to oblige us to beat up the whole day to fetch the island of Gal. Towards evening we saw a boat pulling off to us, and I lay by to let her come along-side. There were some Portuguese in her, who offered to take us between the islands of Alvaredo and Gal; a passage which, after the warning given by La Perouse, I should not have ventured, although it shortens the way very considerably. We however found it safe, as a ship may approach both islands without any danger. The depth of the road diminishes gradually to 5 fathoms, in which soundings we anchored at five o'clock in the evening of the 21st, on a clayey bottom. Fort Santa Cruz on the island Atomery bore N. W. 10°, the center of the island Atomery N. E. 35°. The island of Ratones S. E. 15°, and Ponta Grossa N. E. 66°. Our distance from Santa Cruz was one, from St. Miguel five miles.

CHAPTER IV.

STAY AT ST. CATHERINE'S.

Reception at St. Catherine's and Occurrences there—The Observatory set up on the Island of Atomery—The Masts of the Neva found to be bad—Prolonged Stay at St. Catherine's—Remarks on the Fortifications towards the Sea, on the Town of Nuestra Senhora del Destero, and the Troops there—Miscellaneous Observations on the State of this Colony, its Trade and Productions—Refreshments which the Navigator finds there, and Prices of them—English Privateer—Nautical and Astronomical Observations.

We had no sooner cast anchor than an officer came on board from fort Santa Cruz to welcome us, and the next day we had the pleasure of a visit from the commandant himself. As I wished to make my stay here as short as possible, I went this same morning to the town of Nuestra Senhora del Destero, which lay about 9¾ miles south of our anchorage. As this place is the residence of the Governor, I conceived that our wants would be the soonest supplied there. The Governor, Don Joseph de Carrado, colonel of the Portuguese army, whom I waited upon with Captain Lisianskoy and some of the officers of the ship, immediately on our arrival, received us with great politeness. He promised, with the greatest kindness, to afford us every assistance in his power; he sent a sergeant on board of both ships, who was placed entirely at our disposal; had a list made out of the provisions we wanted, and directed an officer, for the more speedy procuring them, to

purchase them in the interior of the island and on the main land. He ordered wood to be cut for us; a request which I particularly made to him, as this employment would have been very laborious, under the extreme heat, and might prove injurious to the health of the seamen. He allowed us to erect our observatory on the little island of Atomery; an object of the greatest importance, as well to enable us to determine the rate of the watches, which in all three had varied very much since we left Teneriffe, as to facilitate the observations which Dr. Horner proposed to make on the southern hemisphere.

After the conclusion of this business, which, owing to the extraordinary kindness of the Governor, was arranged so much to my satisfaction, I returned on board. The ambassador and his suite remained on shore, the Governor having given up half of his house to him, and appointed a country-house which he possessed, at a short disance from the town, in a very pleasant situation, for the use of his suite. On my return to the ship, I saluted fort Santa Cruz with thirteen guns, which compliment it returned with the same number; and on the same day the commandant with some of his officers dined on board my ship. I sent an officer on shore to discover a suitable place to complete our water and repair the casks, and there could not be a more convenient one than that which he selected for this purpose, called San Miguel, a small village, in a most picturesque situation. From a beautiful cascade, the water, which is excellent, is conveyed by pipes to a rice-mill, which is but seldom worked. In three days, a ship may with the greatest facility complete her water, even though she required 100 tons; the only inconvenience being the distance, which is five miles; but

with a large barçaça, this is not much felt. Dr. Horner established his observatory the same day on the appointed spot. The work on board the ships went on with the greatest diligence; and I had a good prospect of being able to continue my voyage in ten days, when a notice came from Captain Lisianskoy, which deprived me of all my hopes. The main and foremast of the Neva were found to be so bad, that Captain Lisianskoy was obliged to remove them entirely. In a place where no trade is carried on, and where, consequently, there are no people to supply the wants of shipping, this appeared to present insurmountable difficulties, and must, but for the attentive zeal of the Governor, have detained the Neva several months. As no masts are kept ready made here, the Governor sent into the neighbouring woods where the finest trees for the purpose may easily be met with. The chief difficulty in procuring them was in the transport of these heavy bodies from the woods to the shore; and notwithstanding every assistance on the part of the Governor, this vexatious, as well as unexpected, affair delayed our voyage five weeks.

Circumstances of an unpleasant nature made my stay on board the ship almost constantly necessary, and prevented my obtaining any accurate knowledge on the state of this colony. It cannot, however, escape any one's notice, even though he should not have the advantage of verbal communication with the enlightened part of the Portuguese residing here, that the cabinet of Lisbon, either from a policy undoubtedly erroneous, or from an indolence which is still more unpardonable, neglects this possession in an uncommon degree. How much Portugal mistakes the advantages that she might derive from her colo-

nies in this part of the world, is a fact too well known to need repetition. Of the whole of Brazil, the island of St. Catherine, with that part of the main land adjoining it, has perhaps the least attracted the attention of the Portuguese government, much as it deserves it, on account of its situation, its healthy climate, fruitful soil, and valuable productions.

The island, which is separated from the main land by a strait about 200 fathoms wide, lies in a N. N. E. and S. S. W. direction; is 25 miles long, and about 8 or 9 wide, except in some parts where it is not more than 3 or 4 miles wide. The N. N. E. extreme lies, by our observations, in latitude 27° 19′ 10″ S. and longitude 47° 49′ 20″ W. of Greenwich. From Frezier, I believe, we have the first accounts of this island, as well as the first chart, which is pretty correct. Lord Anson was the next to give the public any information upon it. Lozier de Bouvet touched here in 1738, and in 1785 the unfortunate La Perouse. In the eighteen years which have elapsed since this last period, no material alteration appears to have taken place. At present, the very extended road is protected, as it was then, by three insignificant forts, namely, Ponta Grossa on the western side of St. Catherine's, Santa Cruz on the island Atomery, and a small fort of nine guns on the island of Ratones; but of these nine guns three only were in a serviceable state. Fort Santa Cruz is the most important, and as our observatory was erected here, we had an opportunity of viewing it. The faults of this work, which Monneron* points out in some of his letters, are perfectly grounded. I counted only twenty guns here, which,

* Engineer on board La Perouse's ship.

for the most part, appear to be in very bad condition; the garrison scarcely amounted to fifty men. Any nation that should undertake to get possession of this colony, might do it as easily as the Spaniards did in 1777, without so large an armament: yet the impossibility of establishing a durable colony here, without having at the same time possession of some part of the adjoining coast, will deter any one from attempting so useless a conquest. The town of Nuestra Senhora del Destero is still worse fortified: a small fort of eight guns at the landing place, the carriages of which were nearly all rotten, constituting its only defence. The small battery, *en barbette*, which Monneron likewise mentions as situated at the entrance of the strait, now no longer existed. The garrison consists of about 500 men, who, notwithstanding the quantity of valuable diamonds and the 20 millions of crusades which are annually sent from the Brazils to Lisbon, have for several years received no pay, a striking proof of the imbecility of the government. In order, however, to secure the garrison against starvation, every soldier receives for his daily maintenance twenty reis, or the thirty-seventh part of a Spanish piastre.* They are, however, very well clothed, owing probably to the care of the Governor and the commander of the regiment; the government, to judge from the manner in which it remits their pay, not having the least share in it. The commandant of the garrison was a descendant of the celebrated Vasco de Gama; and by a privilege enjoyed by this family, one of its descendants, so long as St. Catherine's has a military establishment, is entitled to the command of the troops there. In the year 1785, when

* 750 reis make a Spanish piastre.

La Perouse touched at this island, Don Antonio de Gama, one of this family, was military commandant.

The town, which is very pleasantly situated, consists of about 100 ill-constructed houses, and is inhabited by 2000 or 3000 poor Portuguese and negro slaves. The Governor's house and the barracks are the only buildings distinguished, by their appearance, above the rest. They were at this time building a church, which in many catholic countries is thought much more of than either hospitals or any other useful building. I was not a little surprised at seeing one evening about ten o'clock, as I was going on board, several negro slaves of both sexes carrying stones for this purpose; but my astonishment diminished in some degree, when I considered that the reward of this religious zeal belonged less to them than to their masters.

The government of Don Joseph de Carrado stretches from Rio Grande in latitude 39° S. and longitude 54° W. to the settlements of St. Paul, in 23° 33′ 10″ S. and 46° 39′ 10″ W.

My endeavours to obtain an accurate account of the population of this government failed; but it must be very inconsiderable, as the coast only is inhabited, and the people are exposed to the attacks of the natives, as happened even during our stay there. These attacks are not however attended with any bloody consequences; the natives are content to plunder, and carry off particularly the cattle belonging to the Portuguese.

On the main, as well as in the island, the soil is remarkably

fruitful. Excellent coffee and sugar are cultivated here. The rum is not equal to that of Jamaica; but my own experience has convinced me that it improves by age and travelling, and yields then in nothing to the rum of Saint Cruz. But as foreign ships are only allowed to purchase for ready money, and none of the inhabitants of this government are permitted to send their produce to Europe, the prospect of selling it falls entirely to the ground. Where the market is overstocked, industry must naturally be checked; and they only cultivate therefore sufficient for their own use and to enable them to send yearly one or two small vessels of about 70 to 80 tons to Rio de Janeiro, to barter inland productions against European goods; for the inhabitants of these parts receive only from Rio de Janeiro the most indispensable articles of life. The price of coffee and sugar at the time of our stay here was ten cops the pound, and that of a gallon of rum was less than half a piastre. It is easily understood that a still lower price would be paid for these articles if purchased in large quantities and under other conditions. They have the finest specimens of wood here in abundance, and I collected a set of more than eighty different species, which, on account of their colour and strength, would form an important article of exportation: but this is absolutely prohibited. The Prince Regent has, indeed, in order to bring this government into repute, declared the island a free port, but with various restrictions, which oppress trade, and make this pretended benefit appear in a very ridiculous light, as the chief produce of the soil, timber, cannot be exported on any terms, and the others only for specie. It is not likely that any ship should come from Europe to St. Catherine's to purchase coffee, sugar, and rum for ready money; and I doubt

very much whether on the whole island, and the neighbouring coast, sufficient would be found to load a ship of 400 tons. Besides, as the inhabitants are forbidden to export their produce to any other place than to Rio Janeiro, their trade remains, as formerly, in the most miserable condition. The most necessary articles, which might be manufactured here in the greatest abundance, such as soap, tar, &c. are so scarce, that on our arrival the inhabitants would only spare us provisions in exchange for them. Upon landing, the sassafras tree and the oleum ricini, the plant from which castor-oil is extracted, are seen every where in the greatest abundance; and yet Dr. Espenberg was unable to procure even a very small quantity of this oil, although he had particularly reckoned upon getting some here. My carpenter, whom I had sent out in search of spars for planks, found trees, at a distance of only two miles from St. Miguel, fit for masts for the largest ships. I have already said that not a single merchant is to be found in the town of Nuestra Senhora del Destero; and yet if a few were to establish themselves here under the protection of the government, they could not fail, with a tolerable share of enterprizing spirit, however small the capital they might set out with, not only of securing considerable profits to themselves, but of producing the most beneficial effects to the cultivation of the soil; and they would soon find themselves in a condition to send several richly laden ships to Portugal. The Prince Regent may withdraw from St. Catherine's the privilege of being a free port, if he will but grant to the inhabitants of these parts a little more liberty of commerce. A free port without a free trade is a contradiction, of which unluckily they do not seem aware. The whale-fishery, which within these few years has again be-

come a monopoly of the crown, would afford another rich branch of profit, were it only carried to the extent of which it will admit. But so long as the Portuguese government shall proceed on the contracted plan which it has now adopted, it is impossible that the revenues of these colonies should amount to half the sum necessary for the payment of the troops and law officers; and on this account it is that the greatest misery prevails in them.

Ships going round Cape Horn, or destined for the whale-fishery upon this coast, cannot desire a better harbour than St. Catherine's to run into. It is infinitely preferable to Rio Janeiro, where strangers, particularly if they arrive in merchant ships, are treated with the same insulting jealousy as in Japan. Even Cook and Banks were exposed there to insults, the very relation of which cannot fail to excite disgust. In St. Catherine's, in the vicinity of which there are no diamond mines, a stranger enjoys perfect liberty: the harbour is excellent, the water very good and easy to be procured. Fire-wood may be felled free of expense, and for what is ready felled, and the vender himself brings on board, a charge is made of ten piastres the thousand; every log of which is upwards of three feet long. The climate is particularly healthy. Our people, after a residence of seven weeks here, were all perfectly well; during the first days, indeed, several of them were seized with a violent cholic, which lasted only a few hours, and then disappeared entirely. The heat, even in January, the hottest summer month, is quite tolerable; the thermometer on board the ship never rising above 22°, and the constant fresh sea-breeze diminishing the heat still more. Provisions and fruits of all descriptions

are here both cheap and abundant. We purchased, for example, an ox weighing 400 lbs. for eight piastres; a hog weighing 200 lbs. for ten; and for five fowls we paid one piastre. The season was still too early for oranges and lemons, yet we had them by thousands for a mere trifle. Water melons and pumpkins were in the greatest plenty. Of fish indeed we found a great scarcity; but the season, owing to the heat, was unfavorable for fishing, which is accounted a very profitable employment, except in the summer months. The only vessels used for this purpose are canoes, hollowed out of a single tree, of which some are more than thirty feet long, and only three feet wide: owing to this narrowness, though they row with great rapidity, they cannot venture to sea in rough weather.

On our arrival here we found an English privateer with two French prizes, which had been destined for the whale-fishery. The commanders, Americans by birth, had, in the general opinion, which the Governor himself agreed in, given up the ships of their own accord to the Englishman, who, contrary to the law of all civilized nations, had taken possession of them under the guns of fort Santa Cruz. This act of the Americans appeared so base, that we gave little credit to the accusation, until an order came from the Viceroy for their seizure, that they might be delivered up to the French government, which convinced us of the reality of their crime. The English privateer had, in the full expectation of a war between his own country and Spain, taken a vessel belonging to the latter nation, and not only brought his prize into St. Catherine's, where he had privately sold the effects with which it was laden, but had fitted the vessel out with sixteen guns, and anchored her as a guard-ship in the

Portuguese roadsted, to examine every ship that arrived. The commander of this Anglo-Portuguese guard-ship carried his imprudence so far as to send his boat on board a Portuguese ship of war which arrived there, a brig of eighteen guns, to put the usual questions on such occasions to her captain, who was not a little surprised at being examined under the guns of a Portuguese fort. The brig had been sent by the Viceroy to St. Catherine's to take possession of the whole squadron of English privateers. The Spanish prize, thus fitted out as a guard-ship, escaped, as well as one of the French ships, and the privateer only, with his other prize, fell into the hands of the Governor.

I shall conclude the unsatisfactory account of this place with some nautical and astronomical observations which we made here. The entrance is as easy as possible. The islands Gal and Alvaredo are not to be mistaken: the first, which is the smallest, and lies most to the northward, is particularly remarkable by its long white streaks on the steep side, as well as by two small rocks, which lie at the N. E. extremity. At the distance of about nine miles the depth is thirty fathoms, and gradually decreases. Coming from the northward, it is best to steer between the islands Gal and Alvaredo, leaving the small rocky island San Penedo, which lies three and a half miles W. N. W. of Alvaredo, on the right. A S. S. W. and S. W. by S. course leads directly to fort Santa Cruz. The anchorage is perfectly safe every where, whether to the north or southward of this fort; yet it is better to anchor to the southward of Santa Cruz, as well on account of the communication with the town, as of the vicinity to San Miguel, where the best

water is to be procured. Coming to St. Catherine's from the southward, you steer between the island of Alvaredo and St. Catherine's. The passage is perfectly safe. If the wind should be contrary, a ship may work in without danger, for close to St. Catherine's there are four fathoms water, and the coast of Alvaredo is equally deep.

The observations on the ebb and flood tides were made on the island of Atomery, where the observatory was erected by Dr. Horner. The following are the remarks which he communicated to me on this subject.

The ebb and flood are here very unsettled, and depend entirely on the wind. The flood sets in from the N. the ebb from the S.; and as the wind is almost always from the sea, the ebb, with a fresh northerly wind, is scarcely apparent, and seldom lasts more than two or three hours. The time of high water at *full* and *new* moon was, by a mean of several observations, found to be 0*h*. 49′. The water continued sometimes at its height for three or four hours together, during which no change whatever was perceptible, either in its increase or decrease. The lowest tide we had was, on the 27th January, one day after the full moon, with a fresh N. wind; and the highest tide, which rose 3 feet, was two days after the full moon, with a very moderate N. E. wind. A southerly wind kept the water up above an hour.

Dr. Horner found the polar elevation of the observatory, where he had fixed a quadrant, by a mean of several meridian altitudes of the sun - - - - - - - - - 27° 21′ 58″ S.

The longitude by a mean of several lunar observations, by Dr. Horner and myself - - - - - - - - - 48° 00′ 00″ W.
Arnold's large watch, No. 128, by its rate of going at Teneriffe, made the longitude of the observatory - - 47° 51′ 00″ W.
Arnold's small watch, No. 1856 - - - - - 48° 52′ 45″ W.
Pennington's watch - - - - - - - - - - 48° 09′ 35″ W.

By several observations which Dr. Horner made almost daily with a transit telescope at his observatory, on the culmination of the sun and stars, as also by the corresponding altitudes of the sun, he found that the loss of No. 128 in its rate of going had increased 9″, and was still increasing; that the daily acceleration of No. 1856 had increased 5″, but that its rate of going since these observations, had continued the same; namely, on the 24th January, 1804, at noon, No. 128 was too late for mean time at fort Santa Cruz - - - - - - - - 2*hrs.* 25′ 38″ 5.
It lost daily on the 24th January - - - - - - - +18″ 00.
On the 3d February it was already - - - - - - +24″ 00.
On the 27th October, 1803, it was, at Teneriffe, only +11″ 40.
On the 3d September, at Copenhagen - - - - - + 8″ 42.
On the 8th July, at St. Petersburg - - - - - - + 9″ 37.
In April, in London - - - - - - - - - - - + 4″ 88.
No. 1856 was too early for mean time at fort Santa Cruz, on the 24th January, 1804 - - - - - - - 8*hrs.* 29′ 32″ 5.
Its daily increase was at this time - - - - - - - −14″ 94.
On the 27th October, at Teneriffe - - - - - - - −7″ 50.
On the 3d September, at Copenhagen - - - - - - −5″ 56.
On the 8th July, at St. Petersburg - - - - - - - −7″ 51.
In April, in London - - - - - - - - - - - −2″ 60.

Pennington's watch was, on the 24th January, too late for mean time at fort Santa Cruz - - - - - - - - - 3*hrs.* 16′ 26″.
Daily loss - - - - - - - - - - - - - - - - - +7′ 11.
On the 27th October, at Teneriffe - - - - - - - +5′ 30.
On the 3d September, at Copenhagen - - - - - - +1′ 83.
On the 8th July, at St. Petersburg - - - - - - - +5′ 21.
In April, in London - - - - - - - - - - - - - +0′ 70.
The variation of the needle, which Frezier, in 1712, found to be 10° E. we found, by a mean of two compasses =7° 50′ E.

CHAPTER V.

DEPARTURE FROM BRAZIL AND ENTRANCE INTO THE GREAT OCEAN.

The Nadeshda and Neva sail from St. Catherine's—New Orders issued to Captain Lisianskoy—Character of the Japanese on Board—Strong Current by the Rio de la Plata—Perceive Staatenland—Weather Cape St. John—Longitude of this Cape—Reach the Meridian of Cape Horn.

On the 22d January the Neva received her fore-mast, and on the 25th her main-mast. Day and night the crews of both ships were employed in getting her ready for sea; and on the 31st, Captain Lisianskoy notified to me that he should be prepared to sail on the 2d February. On the 1st I unmoored, conveyed the observatory to the ship, and sent my boat for the ambassador, who, during the whole of this time, had remained in the Governor's house, where he had been received with the greatest hospitality. On the 2d February the ambassador came on board, accompanied by the Governor and several of his officers. The guns of all the three forts fired the moment the boat hove in sight. This politeness to the ambassador, I returned on my part, by saluting the Governor on his departure with eleven guns.

From the long stay we had been obliged to make at St. Catherine's, I feared a stormy passage to Cape Horn, owing to the very advanced state of the season. I had intended to have

doubled this promontory in the month of January, which could not now be done earlier than March; it was therefore necessary to make all possible haste, and to avoid every delay, even though we should be separated. At our departure from Cronstadt I had settled with the Neva, to make port St. Julian on the coast of Patagonia, and Valparaiso on the coast of Chili, our places of rendezvous. These it was now necessary to alter, and I wrote an order to Captain Lisianskoy to cruize, in case of our separation, for three days off Cape St. John, the eastern point of Staatenland, and if he should not see the Nadeshda in this time, to continue his voyage to the harbour of Conception, where he was to wait for us fifteen days. In the event of our being separated beyond Cape St. John, and that he, on the 12th of April, should have advanced more to the northward than 45°, and to the westward than 85°, he was then to make for port Anna Maria, in the island of Nukahiwa, one of the Washington islands, and there wait ten days for me. But if, on the 12th April, the Neva should not have reached the parallel of 45°, and the meridian of 85°, which supposed a long and difficult navigation, Captain Lisianskoy was to make for port Conception, take in, with all convenient speed, a supply of water and refreshments, and then steer directly for the Sandwich islands, but not without touching at the group called Washington islands, and inquiring after the Nadeshda in port Anna Maria.

I had resolved upon giving the preference to port Anna Maria, over that of Madre de Dios in the island of Santa Christina, because, from the report of Lieutenant Hergest, this harbour seemed to unite every advantage: besides, as neither

the island, nor any part of the group lately discovered by the Americans, had been examined, either by the discoverers, or by any European ships which might have seen them since Captain Ingraham, I thought it of consequence to obtain some information about them.

A strong northerly wind prevented us from sailing on the 3d February. It blew so hard that there was apparently no ebb at all, and I had no hopes of being able to work out of the harbour and get to sea. The same happened during the morning of the 4th; but about half past three in the afternoon, a violent thunderstorm arose with a strong southerly wind. I immediately made the signal for sailing, and about four, both ships were under weigh. A boat which I had sent off for water, about an hour before the shift of the wind, still detained us, and it was not until six in the evening that we weathered the N. N. E. point of St. Catherine's, between which and the island Alvaredo I had taken my course. At seven this point bore by compass S. W. 75°, distant about six miles. From this cape, which, by our observations, lay in latitude 27° 19′ 10″ S. and longitude 47° 49′ 20″ W. I took my point of departure.

Throughout the night and the next day we had very unsettled weather, with constant rain and a strong southerly wind, by the help of which, and by steering in an easterly direction, we got so far from the land, that at twelve the next night we could not strike ground with a line of fifty fathoms. The wind now veered round to E. S. E. I therefore instantly put the ship about, and steered along the coast S. by E. With the shift of

the wind the weather cleared up, and we already saw some storm birds, though as yet only in the 28th degree of latitude. At eight in the afternoon we sounded, and met with a clayey bottom in sixty-five fathoms water. I therefore steered one point more from the land, namely S. S. E. On the 7th February, the clearness of the weather allowed us to make several lunar observations. Mine, reduced to noon, gave, by the Nautical Almanack, 46° 34′ 15″; by the Connoissance des Tems 46° 52′ 30″ W. The watches gave 46° 30′. The latitude at noon was 30° 16′ 40″ S. The variation of the needle was this day 11° 02′ E.

I began from this day forward to portion out the water to the ship's company. The allowance for every man, without distinction, from the captain to the sailor, was two quarts daily. To the Japanese only, I allowed a larger quantity; yet they alone complained of an arrangement, which, owing to the uncertainty of the duration of our voyage to the Washington islands, which might last four months, I considered as absolutely necessary. During the voyage I had frequently found cause to be very much displeased with our Japanese, and it is scarcely possible to imagine worse people than they were. Although I treated them with particular kindness and attention, and bore their selfish humours with a patience at which I was myself surprised; yet this good treatment, certainly unmerited on their part, had not the least effect on their boisterous character. Lazy, dirty in their persons, always ill-humoured and passionate in the highest degree;—these were the leading features which distinguished them. An old man of sixty years of age formed the only exception, and he differed in every

respect from his countrymen, and was alone deserving of the Emperor's favour in sending them back to their country. They would never do any work, not even when their assistance might have been of advantage to themselves. With the interpreter, who however was just as bad as the rest, they lived in a continued state of warfare, and several times swore aloud to be revenged on him, and for no other reason, than because he was rather more noticed by the ambassador than the others.

The wind gradually veered from E. S. E. to N. N. E. and I steered quite a southerly course. It blew very fresh, sometimes with gusts of wind and rain, and then again with fair weather. We advanced rapidly towards the south, and on the 9th February were already in latitude 34° 38′ 16″. The longitude by our watches was 47° 30′ W. At two o'clock in the morning Lieutenant Golowatscheff, who kept the middle watch, observed a curious ripple of the water occasioned by a current. It formed a line stretching N. N. E. and S. S. W. as far as the eye could reach, and was throughout lighted up so strong, that, according to his description, it had the appearance of a fiery furrow. This was the true limit of the current, which, since our departure from St. Catherine's, had carried us fifteen miles a-day to the S. W. This day at noon our observations shewed a difference of seventeen miles N. N. E. ½ E. in the dead reckoning. This alteration in the current is probably owing to the vicinity of the Rio de la Plata, from which we were now 240 miles in an easterly direction, and the next morning, by which time we had completely passed the mouth of this river, the current set thirty-two miles in the same direction as the preceding day, that is to say N. E. 28° 30′. We

had mostly favorable weather, and generally a fair wind. In the 37° of latitude we saw the first albatross, and several birds of the species of storm birds. In the 40° of latitude we saw several large pieces of seaweed, which are generally conceived to denote the vicinity of land, from which we were however 600 miles off. The variation of the needle increased gradually, and on the 17th January, in latitude 44° 15′, and longitude 56° 50′, we found it by a mean of four sets, each of six observations, made with two compasses, and which varied from 15° 11′, to 20° 4′ 40″ of each other, to be 17° 37′ 50″ E. On the same day we had several lunar observations; a mean of four sets, each of five observations, gave me 56° 55′ 25″ as the longitude. By the same number of observations Dr. Horner made it 57° 05. The timepieces at the same moment made it 56° 40′.

On the 18th and 19th February we had a violent north wind, with heavy drizzling weather, which was followed by a great thunderstorm and a thick fog, so that for several hours we could not see the Neva. At nine in the evening it cleared away, and we had a fine bright night. As I had made some alterations in the fog-signals I lay by, and sent our boatswain on board the Neva. During this time we hove the lead over board, and found a bottom of grey sand with black spots, with a line of eighty-five fathoms. Captain Lisianskoy at the same time made known to me that he had sounding in fifty fathoms. At twelve at night we could not strike ground with a line of seventy fathoms. As we had no altitude of the sun at noon, Dr. Horner determined the latitude by the culmination of Sirius and the *a* of Orion to be at eight o'clock 48° 03′; our

longitude, by the observations made the day before with the timepieces, reduced to this moment by the ship's reckoning, was 62° 33′; by the last lunar observation it was 62° 50′. At ten o'clock at night Dr. Horner calculated the longitude by some altitudes of the Aldebarans to be by our watches 62° 44′.

I cannot neglect this opportunity of mentioning Dr. Horner's unwearied diligence in determining, at all times, the latitude and longitude of the ship, when the common observations failed. If the sun did not shine in the day time, we were sure at night that he would give us our latitude and longitude. I have often seen him in the coldest and most unpleasant weather, particularly off Cape Horn, waiting, a sextant in his hand, with the most unwearied patience, to catch a glimpse of the sun between the clouds, and my requests, that he would desist from his frequently useless exertions, were seldom attended to. There were very few days during the whole of this voyage in which the true longitude of the ship was not calculated by an observation of the heavens.

I caused the lead to be hove regularly two or three times a-day until our arrival off the coast of Staatenland, the depth we usually found was between sixty and seventy fathoms, over grey sand, with black and some shining spots, and we sometimes met with fine black and yellow sand.

On the 21st February, after a fresh breeze which had lasted about six hours, the Neva made the signal of having sprung her main-topsail yard, and that she must replace it with a new

one. I lay by while this accident was repairing, which was completed about six o'clock, when we again made all sail. The variation of the compass was found to-day to be 21° 40′ E. The ship's latitude at the time was 49° 43′, her longitude 65° 13′. The wind in the night shifted to the westward, and as we were pretty nearly in the center between Falkland islands and the coast of Patagonia, neither of which it was any object to see, I steered directly S. by E.; but the sea ran so high from the southward, that the ship was very much retarded by it. Nevertheless as I could not afford to lose this wind, I set all possible sail. This heavy sea, which could not be alone ascribed to the high wind of the day before, which was but of short duration, together with the lowness of the barometer, which stood at 29 *in.* 35, seemed to portend a storm from the southward; the wind however was not very fresh, and yet when we got opposite the great bay of St. George, the sea had become very rough. On the 23d February the weather was so fine that I had Hales's machine put over board. The temperature of the air was 12° Reaumur, on the surface of the water the thermometer stood at 10°, and at the depth of 55 fathoms, where the machine remained 10 minutes, 8½°. The whole depth of the water at the time was 75 fathoms. On this day we saw upwards of twenty whales, swimming two and three together, and some of them came so near the ship, as obliged them to turn that they might not be sailed over. Captain Lisianskoy came on board, and I informed him that it was my intention, in case it could be done without much loss of time, to come to an anchor, for one day, at Easter island; I wished not only to ascertain the rate of our watches, but to learn whether

La Perouse's beneficial intentions in leaving sheep, goats, and hogs for the inhabitants had been fully answered.

On the 24th February, I reckoned myself, by our observations, about ninety miles from Cape San Juan, the eastward promontory of Staatenland. Conceiving it to bear S. S. E. of us, I steered S. E. under all sail, to see the land before sunset, that I might choose a sure course for the night; but the wind fell, and our hopes were frustrated. About seven o'clock I took in all sail and steered E. under double-reefed topsails. At five the next morning we had sight of the whole coast of Staatenland, trending from S. to S. E. at a distance of from thirty-five to forty miles. The land formed nearly a straight line, lying E. and W. and appeared to consist entirely of pointed hills, separated from each other by deep hollows, and cut sharp off by the sea. To the westward we perceived a promontory, stretching towards the N. and having the appearance of a stumpy rock cut down vertically. This I took to be Cape St. Diego, the eastern extreme of Tierra del Fuego, as also of the northern entrance of strait Le Maire. There was an astonishing number of whales, which came so near as to alarm the officer of the watch, before day-break, by the noise they made in spouting up the water, who fancied we were near breakers. Although the wind was very favorable for us to have passed through strait Le Maire, I thought it better to sail round Staatenland, the violent currents in the strait being often very dangerous to shipping, as the experience of many navigators has shewn; and the advantages, on the contrary, but very trifling, since, the only wind which will carry you through it, soon

brings you back the short distance to the westward, which you lose by steering an easterly course round Cape St. John.

At eleven this promontory lay, as much as we wanted it, in a true southward direction. As the fine weather and clear horizon allowed us to take very accurate observations, I shall here set down the longitude of Cape St. John, as given by our watches, and compare it with the observations made by Captain Cook and other navigators. By the rate of the watches, determined by Dr. Horner, from a series of observations made during our long stay at Santa Catharina, the longitude of Cape St. John was, according to

No. 128 - - - - - - - - - - - - - -	63° 42′ 30″.
No. 1856 - - - - - - - - - - - - - -	63° 49′ 45″.
Captain Cook - - - - - - - - - - - -	63° 47′ 00″.
Captain Bligh - - - - - - - - - - - -	63° 18′ 00″.
Arrowsmith, probably after Malespina - - -	63° 40′ 00″.
By the watches on board the Neva, per signal	63° 47′ 00″.

If we therefore reject Captain Bligh's observation as varying nearly half a degree from that of Captain Cook, the greatest difference in the longitude of Cape St. John, according to the observations of Captain Cook, Malespina, and the watches on board of both ships, was 7′ 45″. Captain Cook's must therefore be admitted as the true longitude, all the others differing only a few minutes from his. Thus it will be seen that there are few cities in Europe, the geographical longitude of which is determined with the same degree of accuracy as that of this barren rock, in one of the roughest and most inhospi-

table islands of the globe. But how infinitely important is this accuracy to the safety of shipping!

By our latitude at noon we were thirty-three miles from Cape St. John, which, at this distance, appeared a single high hill with some gentle acclivities on both sides. To the eastward, the land seemed to stretch still a few miles farther. We saw nothing of the New Year islands, and I must add, that although we brought to, the whole night, with a very moderate wind and scarcely any sail, I did not perceive the slightest difference between our observations and the dead reckoning: probably owing to the distance we kept from the land, in which I entirely followed Captain Cook's advice,—never to approach this island nearer than twelve leagues or thirty-six miles, to secure yourself against the strong currents, and not be obliged to put into New Year harbour.

The day was very beautiful with a fresh N. N. E. wind, which veered in the evening towards N. N. W. At noon we lost Cape St. John in a fog; and about seven in the evening it again cleared itself from the clouds. We now saw two hills near it, which are smaller but more peaked. After about a quarter of an hour, it disappeared altogether. At six in the evening we sailed across a strong current, stretching from N. E. to S. W. as far as the eye could reach, and in several places we could perceive large spots, where the water was quite still, probably owing to the meeting of different currents. The rippling which pointed out the north-eastern direction of the current, must have been predominant, as we concluded,

from observations made this afternoon and the next day. At half past eight Dr. Horner found our latitude, by the culmination of various stars, to be 54° 46′, fifteen miles more to the northward than the ship's reckoning, and the next day we found a difference of twenty-seven miles to the northward, and eighteen to the eastward.

After weathering Cape St. John, I steered throughout the night with a strong northerly wind to the southward, and one point to the west; and about eight o'clock I reckoned myself already some minutes to the south of Cape Horn. I therefore steered a more westerly course; but in about half an hour so high a wind arose at S. S. W. and towards evening veered round to W. that we were obliged to take in all our smaller sails, and to double reef our topsails. All this day we saw albatrosses, sea swallows, and different kinds of storm birds; and the night was very stormy, with violent gusts of wind, accompanied by rain and hail. In the morning the storm abated, and we were able to set more sail; but the sea ran very high, and being directly contrary to the wind, strained the ship to an extraordinary degree. The barometer, which the day before had fallen from 29 *in.* to 28 *in.* rose again 2½ lines; the weather, however, did not promise very well, and was besides so cold, that the thermometer on deck fell 3°. It seemed as though Staatenland were the boundary between two directly opposite regions. We had beautiful weather until our arrival there, and, with little exception, constantly fair winds, as our very quick run of only twenty-one days from St. Catherine's to Staatenland sufficiently shews. But scarce had we passed Staatenland, and approached the latitude of Cape Horn,

when south-west winds set in with cold weather, and a constantly clouded sky. Our imagination had been set in motion by our hitherto favorable passage; led us in a few days round Cape Horn; and transported us in a few weeks into the mild regions of the great ocean: but the west wind, which wore a fixed appearance, soon deprived us of this pleasant prospect, and made us fear that we were not to calculate on too much favour.

The fine weather we had at noon was, as I apprehended, of very short duration. About two o'clock we experienced a very heavy squall, which took us so completely unawares, that we succeeded with difficulty in getting in our sails: after this the wind, though it blew very hard, was not to be compared to a storm. About five the sky all round the horizon became overcast, while snow-clouds appeared some five or six degrees high, and from their columnar form, and the black clouds bordering on them, bore a beautiful but terrible aspect. We took in all our sail, with the exception of a few storm-sails, and waited in expectation of the effect of these clouds, which appeared to be fast approaching. It commenced with a hail storm, which for some minutes was very violent, and then changed to a more moderate but continued storm. During the whole night it blew very hard, with violent gusts of wind, and the waves ran mountains high. As we had been warned, as well by the barometer, which fell two lines immediately after the first squall, as by the general appearance of the weather, we were prepared against the worst. The wind varied between W. and S. W. abating a little in the morning, and at noon it was pretty quiet. The sun, too, made its appearance, and our latitude by observation

was 58° 23′, and our longitude 64° 00′. Towards evening we had again a violent squall, and about eight another hurricane from the S. W. much more violent than the former, and similar to the one we experienced on the 15th September in the Scagerrak, with this difference only, that the waves ran infinitely higher. In the morning, instead of subsiding, it increased in violence with tremendous squalls, accompanied by hail and snow. During this storm all the birds disappeared, except a few small ones, which, shortly before it came on, we had seen fluttering round the ship. This was the last gale we had; in the evening it abated; the next day it was pretty moderate, and on the 2d March we had a particularly beautiful day.—The enjoyment we derived from it, those only can form any idea of, who have been at sea in similar bad weather, of which in fact no seaman would complain, but for the cold from which we all suffered extremely. The quicksilver upon deck fell within ½° of freezing point, and in my cabin, during the space of a fortnight, it was seldom more than 8° above that point, and once only 5½°. Every one now came upon deck and endeavoured to warm himself in the rays of the cheerful and cloudless sun. Clothes, bedding, and sails were all hung out to dry, and this had become very necessary, although I never suffered a day to pass without having a fire lighted in the men's birth whenever the motion of the ship would allow it, and I had particularly appointed one man in every watch, to dry the wet clothes of those who were just relieved, before the fire. Several other tasks, of no less importance, were performed. During the storm we had discovered that the ship had a leak forward; and the carpenter was accordingly lowered down to the streak, when he found one of the planks of the outer

sheathing split; this we covered with a sheet of lead. The cables were likewise cast off from the anchors, which, from precaution, I had kept in constant readiness until we should have weathered Staatenland, and till now there had been no opportunity of unbending. This day was equally favorable for our observations: during the three last we made none, either for our latitude or longitude, and now discovered that, while the storm lasted, the ship had been driven twenty-five miles to the N. and forty-two to the eastward, so that after six days we were not by one minute to the westward of Cape St. John. This indeed diminished our satisfaction a little; but a gentle N. E. wind which sprung up, and increased by degrees, again raised our hopes. Hitherto we had not a single invalid; but the constant bad weather in these high latitudes, which are seldom clear of fogs, must in the end lay the seeds of the most dangerous diseases, in spite of the greatest care and most compassionate attention.

The variation of the compass was on this day 24° 32′ E. the southern inclination 73° 15′. The ship's latitude at the time was 58° 59′ S. her longitude 63° 47′ W.

In the mean while the N. E. wind increased, and in the evening we sailed due W. about nine or ten knots; and by our reckoning, at eight the next morning we had weathered Cape Horn, and were already in the great ocean.

CHAPTER VI.

FROM THE MERIDIAN OF CAPE HORN UNTIL OUR ARRIVAL AT NUKAHIWA.

The Nadeshda and Neva sail round Tierra del Fuego—Uncommon low State of the Barometer during this Time—The Ships separate in a Storm—Continue the Voyage to the Washington Islands—Alter the Plan of our Voyage—We cross the Southern Tropic—Series of Lunar Observations for six Days—Remarkable Error of our Chronometers—We perceive one of the Mendoza Islands—Sail along the Coast of Uahuga—Arrival at the Island Nukahiwa—We anchor in Port Anna Maria.

At eight o'clock in the morning of the 3d March, four weeks after our departure from St. Catherine's, we doubled Cape Horn; a voyage, which, perhaps, was never made in a shorter time. The wind, however, shifted almost in the same hour, from N. E. to W. and continued so, though not very high, during several days, with thick hazy weather, so that twice we lost sight of the Neva for some hours. The sea at the same time ran very high from the westward, striking the ship with considerable violence. On the 5th March Dr. Horner caught a glimpse of the sun for some moments, half an hour before noon. From its height he calculated our latitude to be 59° 58′; by the ship's reckoning it was 60° 09′, the highest latitude which the westerly winds drove us into. The longitude, calculated by the same observation, was = 70° 15′. On the 7th March we had the good fortune to see the sun at noon, and our observations again proved to us that the current carried us daily thirteen or fourteen miles on an average due E. The 9th March the

sea was so calm that we lowered Hales's machine. At the depth of 100 fathoms the thermometer shewed 1½°, in 60 fathoms 2½°, and on the surface 2¾°. The temperature of the air at the same time was 4°. On this day the variation of the needle, by a mean of several azimuths, was 27° 40′ E. the greatest we met with in these high southern latitudes. The ship's latitude then was 50° 20′, and her longitude by the watches 72° 45′.

On the 11th March I reckoned myself already half a degree to the westward of Cape Victoria; I steered notwithstanding in the same direction, not trusting to the continuance of the southerly wind, the first we had had since passing Cape St. John; and I wished to secure myself entirely against the westerly and prevailing winds in this sea until you reach the tropic, that in case of necessity, I might be able, without risk, to steer a northerly course, which I could only do by making my longitude more W. For this reason I would not steer to the northward till after we had reached the 80° of longitude, a precaution which I owed to the example of Captain Bligh, who, notwithstanding he had reached the 77°, was unable to weather Tierra del Fuego, and was obliged to steer for the Cape of Good Hope.

On the 14th March we were in latitude, 15° 13′ S. and longitude, 82° 56′ W. By our reckoning, the longitude was 86° 27′. We were now eight degrees to the westward of Cape Pillar, the westernmost promontory of Tierra del Fuego, and I had now no doubt of clearing it, however unfavorable the weather might prove. As soon therefore as the wind permitted, I steered

a north-west course, in such a direction, however, as to keep between the two lines of Captain Cook's first and second voyages, expecting to find here, for the most part, southerly winds, instead of which it was almost constantly north, and blew on the 10th very hard. The waves ran so high, and crossed each other in such different directions, that the ship was tossed about more than in any storm we had hitherto experienced. The very low stand of the barometer for several days past, and which on the night of the 17th, was 28 *in.* 45, the lowest we had seen it (except on the 1st October of the current year) during the whole voyage; the high waves from the N. W. and the clouds which, on the 18th, rose very fast from that direction, led us to expect a violent storm from the N. W. against which we made every preparation. But the weather on this day was very fine, and almost calm. The night preceding we had observed a heavy dew, a sure sign as is generally conceived of the vicinity of land. It was not probable, however, that any could have been near the spot where we then were, our latitude being 55° 46′, and longitude 80° 00′.—The variation of the compass, by a mean of several observations, made, whenever the weather permitted, with two compasses, was 19° 59′ 20″; the dip of the S. end 75° 30′.

At eight o'clock in the morning of the 21st March, we were, by my reckoning, nearly opposite the straits of Magellan; for Cape Victoria, the westernmost head-land on the northern shore of the strait, bore at this time E. distant about 650 miles. We had thus weathered Staatenland and Tierra del Fuego in twenty-four days, a much quicker passage than I had promised myself at this late season of the year. The barometer now re-

sumed its usual height. During the time we were sailing round Cape Horn, in the best, as well as in the worst weather, it had always been six lines lower than before we reached this neighbourhood, and it now again began to rise.

I continued steering a north-west course not to approach the latitudes that have been so much crossed by Byron, Wallis, Carteret, Bougainville, Cook, and several late navigators; almost all of whom, with the exception of Cook in his first voyage, after having passed the straits of Magellan, had steered nearly a due northerly course. During three days we had a very fresh S. wind, with this remarkable circumstance attending it, that, although it blew hard, there was not the least swell of the water; the sea being as calm as in a bay. The barometer stood at 30 *in.* 3, a greater height than we had hitherto seen it. Yet the sky was constantly clouded, and, on the 24th March, so high a wind arose at N. N. E. veering to N. N. W. with lofty waves and foggy weather, that we lost sight of the Neva. The stormy thick weather continued, and our signal guns were not answered. Our separation therefore appeared certain, and when the weather cleared up, we were quite convinced of it; nor was it probable that we should again meet until our arrival at the island of Nukahiwa. Our latitude on the day of our separation was 47° 09′, and our longitude by the timepieces 97° 04′ W.

On the 8th April I mustered the whole crew, and caused them to be examined, lest there should be any symptoms of scurvy among them. It was now ten weeks since we set sail, and during the last six we had met with very bad and damp

weather: Dr. Espenberg did not, however, find the smallest symptom of disease amongst them; but on the contrary, assured me that their gums were firmer and appeared more healthy than on their examination in Cronstadt. Several of them seemed to consider it as an affront that their gums and feet should be examined, and said, half vexed at it, that they should never have the scurvy. The examination of course ended quite to my satisfaction, and I had the good fortune not to have a single man on the sick list, though I had no hopes of the ambassador's cook, who was in a decline, being able to live through the voyage. At Brazil, I had endeavoured to convince him of the necessity of his remaining behind, and offered him the means of returning home; but he would not consent, and I thought it cruel to compel a man to quit the ship against his wishes.

As the weather was growing warmer, I no longer gave the crew butter, but ordered them to double their portion of sugar and vinegar, and gave them every day tea for their breakfast.

On the 10th April we had a very beautiful and warm day, the first of the kind we had experienced since our departure from St. Catherine's. As I calculated now, with some degree of probability, that the bad weather had entirely left us, from this day forward I had a great deal of work put in hand, which could only be done in fine weather, and which occupied us nearly till our arrival at Nukahiwa. The sailmakers repaired the sails we wanted during the trade-winds, in order to preserve the best against the bad weather in the higher latitudes. The smith erected his forge, not only to make several articles that were required for the ship, but also knives and hatchets to

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barter with the islanders of this ocean; the carpenters repaired the boats; the guns were again brought out of the hold, and resumed their former station, and Count Tolstoy undertook to practise part of the crew in exercising and firing.

On the 12th April we had a violent storm for some hours; and about three the next morning a sudden change in the temperature of the air announced a southerly wind, which followed in a few hours. The wind blew fresh from the S. W. and by S. and lastly S. E. which enabled us to set all our sail. I steered N. N. W. finding myself obliged to depart from the plan I had laid of pursuing a westerly course; the constant N. W. winds having driven us back to the 99° of longitude; and as I could not reckon upon a constant fair wind, until we should reach the S. E. trade-wind, and was unwilling to lose any time, particularly as I had determined to proceed directly to Kamtschatka to unship the goods with which the Emperor had permitted the American Company to lade her, previously to going with the embassy to Japan. This determination of sailing direct to Kamtschatka, deprived me, indeed, of the hopes of making any discoveries, with which I had long diverted my imagination, and for which I had besides already laid my plan. The business of the embassy, the concerns of which would require a period of at least six months, could not possibly be concluded this year, so that until May we should not have been able to return to Kamtschatka. As we must therefore be obliged to spend the whole winter in Japan, it was needless to follow my instructions, to proceed there with all possible haste, and I might have spent the months of June, July, and August, in exploring the hitherto but little known regions of this ocean.

Nevertheless I conceived it my duty not to do so. It was of great consequence to the agents of the American Company in Kamtschatka to receive the effects on board our ship, particularly the iron and cordage, as early as possible; and it was easily to be foreseen, that a great part of the cargo must be spoiled during a stay of nine or ten months in Japan, as in the course of the voyage we had frequently found that the casks containing brandy, of which we had several on board, were of a very bad quality. One of the important objects of this voyage was, to procure the American Company the means of bringing their commercial relations into credit as soon as possible, and would therefore have failed; and it was a matter of doubt whether the embassy would meet the success that was expected from it. Thus would a very expensive voyage have been undertaken, and two of its chief ends not been obtained. I now thought it necessary to convey as soon as possible to a place of safety, the rich cargo destined by the Company for Kamtschatka and America, which the directors, from confidence in me and my officers, had not ensured; and the ambassador, as agent for the American Company, was too well convinced of the advantages of my proposal, to make any opposition to it.

Besides this I was to touch at Easter island, distant nearly 500 miles to the westward of us, in the expectation that Captain Lisianskoy, who knew nothing of my resolution to steer at once for Kamtschatka, would bend his course thither in the hopes of falling in with me. The wind during two days blew from the S. E. and E. S. E. so that we already fancied we had caught the trade wind; but it again shifted to the N. E. and N. N. E. I altered my course one or two points, as I found

that we approached too near the tract in which Wallis and Bougainville had steered; and had invariably a man during the day at the mast head, and all night on the bowsprit, promising the first who during the day should discover the land, a reward of ten, and in the night time of twenty piastres. On the 17th April we crossed the southern tropic in 104° 30′ longitude.

The beautiful clear weather on the 18th and 19th allowed us to make several lunar observations. Those of the 18th reduced to noon, gave 106° 51′ 23″. Those of the 19th 108° 04′ 12″. Arnold's watch, No. 128, shewed on the first day 107° 20′ 52″, on the latter 108° 29′ 15″. By the mean therefore, No. 128 was 27′ 46″ too much to the westward. The variation of the compass was, on the 18th April, in latitude 22° 20′ = 5° 49′, and on the 21st, in latitude 20° 58′, and 108° 46′ longitude, 5° 12′ E; and as between this and the Sandwich islands it scarcely ever changes, and is always between 3° and 5½° E. I shall notice it but seldom.

On the 22d April, in 20° of latitude, after some violent gusts of wind which followed each other rapidly from the N. E. and S. E. and split some of our old sails, we fell in with the true S. S. E. trade wind, which continued sometimes blowing fresh, and at others more moderately, but always accompanied with fine weather, until we arrived at the Washington islands. The thermometer rose in my cabin, the coolest place in the whole ship, to 22½°, and on deck in the shade to 23½°. This continual fine weather allowed us to make a series of lunar observations for six days. These are so far important, since the longitude of the Washington and Mendoza islands is founded upon them,

and that this differs from that given by Captain Cook for the latter, and by Marchand and Wilson for the former. Their perfect uniformity must obtain them some credit, particularly as for the most part they were calculated by Bürg's lunar tables. By a mean of these observations, the error of No. 128 was discovered to be 1° 00′ 30″ too much west, and this error is corrected in all our chronometrical observations of the longitude of the Mendoza and Washington islands on the 6th and 7th May.

I now held such a course as carried me right in the middle between Fetugu island (Cook's Hood island) and Uahuga, (Hergest's Riou island,) in which situation they are both said to be visible. In the night of the 4th May we had a violent thunder storm, with heavy rain and some gusts of wind. Towards morning the weather cleared up a little, but the sky was very cloudy and prevented our taking any lunar observations. On the 5th at noon our latitude was 9° 20′ S.; the longitude by the watches, corrected after the last lunar observations, = 137° 08′ W. We therefore passed the night, as the wind blew pretty fresh, under very moderate sail. At day-break we saw Fetugu island, bearing S. W. 50°, distant from 35 to 38 miles. This island is lofty, but is not of a great circumference; it consists of a single high, and at the summit almost flat, rock, with a gentle inclination from north to south. On the northernmost point is to be perceived, though not very distinctly, a division forming two hills. In Captain Cook's chart there appears on the southern side a number of small rocky islands, which we could not perceive; but instead of these we saw several on the N. W. and W. sides, of which some are pretty lofty and quite

circular, and others of a pyramidal form lying about 250 or 300 fathoms from the island. As Captain Cook did not go more to the northward than 9° 20′ when this island bore W. S. W. of him, he could not have perceived the rocks which surround the N. W. and W. sides. At half past six we saw Ohiwaoa, which Mendaña has called Dominick. At first we took it for Montane, (Mendaña's San Pedro.) The easternmost point bore by compass S. W. the middle of it S. W. 70° 30′. The appearance of this island seemed to agree perfectly with the description which Cook has given of it; but at the distance of 35 miles, we could not examine it particularly. At nine o'clock, the eastern point bore due south. Dr. Horner and Lieutenant Löwenstern at the same time took altitudes of the sun, to ascertain the time; by which, with the already mentioned errors of the timepieces, its longitude appeared to be 138° 21′ 30″. The western point of the island we could not distinctly see. At eight o'clock I steered W. N. W. to catch Uahuga at noon in the west, as a sure means of getting its latitude correctly. At ten we perceived the island bearing W. by N. and some minutes after the middle of the island Fetugu bore due south. Its longitude, according to our observations, is 138° 29′ 30″ which differs from that of Cook (138° 48′) by 18′ 30″, and we found its latitude by the combination of our angles and triangles to be three minutes more to the northward. At the time of the sun's culmination, a double pik on Uahuga lay due west distant 18 miles. The meridian was observed, very particularly, by Dr. Horner, Lieutenant Löwenstern, and myself, with sextants made by Troughton and Ramsden, and the latitude found to be = 8° 55′ 58″, which was also the latitude of this double pik, which seemed to me to lie nearly in the

middle, rather nearer perhaps to the south than to the northern extremity. Fetugu, which we shortly after lost sight of, bore at noon S. E. 18°. I now steered along the coast of Uahuga at a distance of 6 or 7 miles, and though we occasionally hove the lead we could find no bottom with a line of 100 fathoms. This island has a very striking appearance; from east to west the land rises to a considerable height, and forms in the middle a pretty lofty mountain, quite steep towards the west; at a short distance, only more to the westward, is the double pik already mentioned, and as the eastern end was brought to bear N. W. by N. the double pik disappeared, and the high mountain in the middle assumed the appearance of a cupola, on the west side of which a column in a pyramidal form was very conspicuous. On the south side there are two bights in which probably an anchorage might be found; but they afford too little shelter from the wind for a ship to lie there in safety. The western side of this island seemed to me the most fruitful, for although it is pretty high, it is more even than the east side, on which there are rough rocks forming a line of piks divided by deep vallies. These piks, although the island is not so wild, give it a resemblance to Staatenland. At the west end there is a rocky island about a mile and a half in circumference, and between the two is a large flat low mass of stone having the appearance of a tombstone. The western extreme of the island falls gradually away to a steep and very prominent but flattened rock; behind which there is said to be a secure harbour, but which we could not examine. We were but a very short distance from the land, and the wind was moderate, but not a single canoe came off to us: nor could we distinguish any inhabitants, although we saw smoke in several places. As the

east point of the island bore nearly due north, Dr. Horner took some altitudes of the sun to determine the time, by which the longitude, according to the corrected rate of the watches was = 139° 05′. The island lies E. N. E. and W. S. W. and its greatest length is nine miles, and so far this agrees with the description given of it by Lieutenant Hergest and the astronomer Gooch; but the appearance of the south side is very different from what Hergest describes, who was only in the vicinity of the west side. The middle of Uahuga lies, by our observations, in latitude, 8° 54′ 30″ S. and longitude 139° 09′ 30″ W. According to Hergest it is in latitude 8° 50′ 30″, and longitude 139° 09′.

About five in the afternoon we perceived Nukahiwa wrapt in fog, which prevented our forming any correct judgment of its distance. About six I took in all, except the top-sails, and as the distance between Uahuga and Nukahiwa by Arrowsmith's chart, which I thought more to be depended on than Hergest's, in the second volume of Vancouver's voyage, is 27 miles, I wore, after running half this distance, to the northward, yet we found ourselves in about an hour so near to the land, as obliged us immediately to put about. This proved that the distance is laid down too great, which our survey confirmed. From the west side of Uahuga to Cape Martin, the S. E. point of Nukahiwa, is only 18 miles. Hergest makes it 20, and Wilson 24 miles. I cannot therefore conceive what has induced Arrowsmith to reject Hergest's account, not only of the latitude and longitude, of the Washington islands, but also of their relative situations, as he ought to have placed confidence in the labours of a pupil of Cook and an astronomer. Hergest, indeed, is not

correct throughout; his statements are nevertheless much more so than either Marchand's or Wilson's. In his draught of the island of Uahuga, Arrowsmith ought to have followed Hergest, as Marchand never had sight of it, and Wilson probably only saw it at a distance. Of the works of the American, Ingraham, who first discovered this island, or of his countrymen, none have ever fallen in my way.

At day-break we steered for the S. E. point of Nukahiwa, bearing N. W. distant about 15 miles. Uapoa at the same time bore S. W. distant 24 miles, and the number of piks upon this island gave it at a distance the appearance of an ancient city with lofty towers. At ten o'clock we were opposite Home bay, which Hergest has called Comptroller's bay: here, I lay to, and lowered a couple of boats, in which I sent Lieutenant Golowatscheff and the boatswain of the ship. Cape Martin and the west point of Comptroller's bay are both remarkable, particularly the former, by their prominent and broken appearance; and another not less striking mark of Comptroller's bay is, a great black rock, half a mile to the west of Cape Martin: but though this bay is sheltered from the wind, its appearance is not on the whole very promising. We perceived some Indians running along the shore, but not a single canoe put off although the wind was very moderate, which gave us but a mean opinion of their skill in navigation; an opinion that was confirmed during our stay upon the island. At a distance of two miles from the land we were unable to strike ground, we next found a bottom of fine sand in 50 fathoms water, and this depth decreased to 15 fathoms, when again, close along the coast, it was 35 fathoms. As soon as I

had got the boats ready, I steered parallel with the shore, at a distance, at the farthest, of a mile, without being able to discover the harbour which Hergest calls Port Anna Maria. The whole coast appears like an uninterrupted line of perpendicular rocks, connected with a chain of mountains, stretching quite inland. These craggy barren rocks have a gloomy appearance, which is only enlivened by beautiful cascades, falling near each other, from the rocks into the sea, from a height of at least 1000 feet. On the top of one of these mountains we distinguished a square stone building resembling a tower. It was not very high, had no roof, and was surrounded with trees, and I took it to be a morai or burial place; but as I never saw any building of this class, similar to the one we visited in the vale of Tayo Hoae, I think it not improbable that it was a kind of fortification, although I could not upon a nearer inquiry obtain any farther information upon it. There were several Indians upon the shore on the low rocks, drawn there, perhaps, from curiosity; and many of them were busied in fishing.

At eleven o'clock we perceived to the westward a canoe rowing off to us: it had an outrigger, and was paddled along by eight Indians; and I was much struck by a white flag it had hoisted, a token of peace that led me to expect some European on board of it. My expectations were soon confirmed. There was an Englishman in the boat, who at first had quite the appearance of one of the islanders; his dress being entirely in their fashion, consisting merely of a girdle round the waist. He shewed me the certificates of two Americans, (to whom he had been of assistance during their stay here, particularly by

procuring them wood and water,) in which it was attested that he had conducted himself well; and he offered me his service, which I readily accepted, being glad to procure so good an interpreter, by whose assistance I hoped to obtain some particular information upon this almost unknown island. In the short stay I proposed making here, it would have been well nigh impossible for us to acquire any positive knowledge of the manners and customs of the inhabitants. Without an acquaintance with their language, all our observations would have been reduced to conjecture, generally proving incorrect. This Englishman, whose name was Roberts, told us that he had been seven years upon the island, and two years previously in that of Santa Christina; that he had been put on shore on the latter, out of an English merchant ship, the crew of which had mutinied against their captain, and could not prevail upon him to join their party; and in Nukahiwa he had lately married a relation of the king's, by which he acquired great consideration; so that it would be very easy for him to be of assistance to us. At the same time he warned us against a Frenchman who had deserted from an English merchant ship, and had likewise resided here for some years. This Frenchman he described as his bitterest enemy, who omitted nothing to blacken him in the eyes of the king and the islanders, and had often, he added, made attempts against his life. Here, too, the innate hatred between the French and English appeared. Not content to disturb the peace of the whole civilized world, even the inhabitants of the lately discovered islands of this ocean must feel the influence of their odious rivalship without so much as knowing the origin of it. How unfortunate it is, that at such a distance, upon islands, the inhabitants of

which are as yet rough in their manners, and whose mode of life is still horribly cruel, where alone the necessity of self-preservation ought to have united two civilized men, though half the globe had been interposed between their native countries; that here, I say, two Europeans should hate, and strive after each other's life! During my stay at Nukahiwa I made every possible exertion to reconcile them, and pointed out the motives which ought to induce them both to live in unity and peace. As they had been placed by fate among a people, whom they themselves represented as false, cruel, and faithless; by friendship and harmony alone could they avail themselves of their superior knowledge to hold all the inhabitants at defiance; while, on the contrary, in the manner they were now living, they could only expect from day to day to fall a sacrifice to each other's hatred. They indeed promised me to be reconciled, and even shook hands in my presence as a proof of their reconciliation; but the Englishman told me in the presence of the Frenchman, that he could not calculate upon a real reconciliation, having frequently offered to live in peace and friendship with his opponent, who would never agree to it; and he added, with much emphasis, that it was easier to float the rocks, to which he pointed, than to inspire this Frenchman with friendly sentiments.

At noon we anchored in Port Anna Maria in 16 fathoms water, over a bottom of fine sand and clay, about half a mile from the northern, and a quarter of a mile from the eastern, shore. The small island of Mutanoe, which forms the western side of the entrance, bearing S. W. 30°, and Mattau, on the east side, nearly south. The small stream from which we received our water, bore N. W. 11°.

CHAPTER VII.

STAY AT NUKAHIWA.

Barter with the Inhabitants—Total want of animal Provisions—Visit to the King—Arrival of the Neva—Misunderstanding with the Inhabitants—They take to their Arms—Second Visit to the King—Amicable Arrangement—Visit a Moray—Discovery of a new Harbour, which is called Port Tschitschagoff—Description of the Vale of Schegua—The Nadeshda and Neva sail from Port Anna Maria for the Sandwich Islands.

We had scarcely let go our anchor, when the ship was surrounded by several hundred of the inhabitants, who brought cocoa-nuts, bread-fruit, and bananas for sale. The only things we could give them in exchange were pieces of old iron hoops, four or five inches long, with which I had supplied both ships for this purpose while we lay at Cronstadt. Such a piece was usually the price of five cocoa-nuts and three or four of the bread-fruit; but though they seemed to set a very high value on these, axes and hatchets were the chief objects of their wishes. They shewed a childish joy on receiving even a small piece of iron hoop, and usually evinced their satisfaction by a loud laugh, displaying their newly acquired riches with an air of triumph to their less fortunate companions, who swam round the ship. This expression of pleasure was perhaps a proof of the little opportunity which they have hitherto had of procuring this valuable metal; and, indeed, we collected, from the

account of Roberts, that only two small American merchant ships had touched here in the space of seven years.

As I understood that very few hogs were to be had, I gave out that these alone should be considered as payment for axes and hatchets. In order to facilitate the purchase of provisions, I forbade the crew, immediately upon my arrival, to barter for any thing, but more particularly for curiosities, with the natives; intending, a few days before our departure, and as soon as we should have procured a sufficient supply of provisions, to recal the prohibition. I appointed Lieutenant Romberg and Dr. Espenberg to manage the barter, and they alone were permitted to purchase provisions, conceiving this to be the only means of preserving order; but as I now found that no hogs were to be procured, and that there never could be any scarcity of cocoa-nuts, I removed the prohibition after a few days, and every one was allowed to supply himself, according to his fancy, with the curiosities of the island.

At four in the afternoon the king and his suite came on board. His name was Tapega Kettenowee. He was a very strong, well made man, with a thick and extremely fat neck, from forty to forty-five years of age. His body was tatooed with a dark colour approaching to black, so completely, that it even extended to spots on his head from which the hair had been cut away. He was in no wise to be distinguished from the lowest of his subjects; being, with the exception of the tschiabu,* entirely naked. I led him to my cabin, and gave

* Tschiabu is the girdle which the savages wear round their waist; in the Sandwich isles it is called maro.

him a knife and a piece of red cloth about twenty ells long, which he immediately bound round his loins. To his suite, consisting chiefly of his relations, I also made some presents, although Roberts advised me not to be so generous, telling me that not one of them, not even the king, would ever make me any return for them. I did not fail to draw the king's attention to the size of our ship and the number of our guns, assuring him, at the same time, that I had no wish to employ them against his subjects; but that he must recommend to them, in the strongest terms, not to drive us to violent measures. At this time I imagined that the king's authority here was equal to that of the sovereigns of the Sandwich and Society islands; but I was soon convinced of the contrary. When he returned upon deck he was struck with the appearance of some small Brazil parrots, at which he expressed his pleasure and astonishment in no very moderate terms, sitting himself down, and considering them for some minutes. I conceived that I should ensure his friendship by making him a present of one; and Roberts, who blamed my liberality, appeared to have conveyed my offer to him in improper terms, for the next day a hog was brought to me in exchange for it.

At sunset all the men without exception went on shore; but about 100 of the females still remained near the ship, round which they had been swimming during five hours. In this time they had made use of every art in their power to declare the object of their visit, nor could they doubt that their wishes were understood, since neither their pantomime nor their attitudes could be mistaken. I would not allow the work on board the ship to be neglected, and this was the reason why no par-

ticular attention was paid to them; and I had issued express orders, that no person of either sex, with the exception of the royal family, should be received on board without my permission. It scarcely began to grow dark when these poor creatures begged in so pitiful a manner to be taken on board, that at last I gave my consent. I had the less need for caution on this head, as I had not a single venereal patient on board, and Roberts assured me that this disease was hitherto unknown in the island. I nevertheless set bounds to this favour, and, after the second day, no females were admitted into the ship, during all the time that we remained here, although every evening there were seldom less than fifty swimming about the ship, who would not go away until a few shots were fired over their heads. I think myself not incorrect in stating, that this debasement of the female sex is less occasioned by levity or ungovernable passion in them, than by their duty to the unnatural and tyrannical orders of their husbands and fathers, who sent off their wives and daughters to procure small pieces of iron and other trifles, and in the morning were seen swimming out to meet them and take possession of the treasures which they had obtained. I have myself seen a man with a girl ten or twelve years of age, probably his daughter, swimming round the ship and making an offer of her. But what excited in me no less astonishment in a physical sense, than horror in a moral point of view, was a child not more than eight years of age, who shewed as little moderation in granting her favours as her sisters of eighteen or twenty. I considered this unfortunate object for some time with a mixture of pity and disgust. In every respect a perfect child, laughing and playing with the feelings so natural to that state, she appeared not to have the least sense of her melancholy situation.

At six the next morning the ship was again surrounded by several hundred islanders with their cocoa-nuts, bananas, and bread-fruit; and the whole royal family did not fail to come on board by seven. I led them all into my cabin to make them a present. A portrait in oil of my wife struck them particularly, and they stood for a long time before it with every symptom of pleasure and surprise, pointing out to each other the curled hair, which they consider as a great beauty. A looking-glass was no less an object of their astonishment. It was not improbable that some of them had already seen such a thing, yet they all looked behind the glass to discover the cause of this wonderful appearance. A large mirror, in which they were able to view their whole persons, must have been something new to them; and the king was so particularly delighted with it, that, either from vanity or curiosity, upon every visit, he immediately went into my cabin to this glass, standing before it for whole hours to my great annoyance.

As I had determined to go on shore, as well to return the king's visit, as to examine the water we were to take in here; and did not chuse to have the ship filled with visitors during my absence, I fired off some cannon, and hoisted a red flag, when the ship was declared tahbu,* and all trade immediately ceased. This had certainly the effect of preventing any person from going on board; but those who swam round the ship seemed to go away but very slowly and with great reluctance. At ten o'clock I went on shore, accompanied by the

* I conceive it unnecessary to explain the word tahbu, which is sufficiently known by Captain Cook's voyages. In the next chapter the force of the tahbu upon this island will be mentioned.

ambassador and most of the officers of the ship. Although, from the friendly footing on which I stood with the king and his relations, and the perfectly unsuspicious disposition of the islanders, I had every reason to calculate upon an amicable reception, I thought it prudent, and indeed necessary, on our first visit, not to appear otherwise than well armed. I therefore took a boat with me besides my barge, of which all the men as well as the officers were armed, the former with a brace of pistols and a sabre, and six of them with fire-arms. The Englishman and Frenchman conducted us as interpreters. A vast concourse of people of both sexes were collected on the beach where we were to land, which, owing to the heavy surf, was not effected without difficulty. Although neither the king nor any of his relations were among these people, they conducted themselves with great decency and respect. After I had examined the water and found it good, we directed our course towards a house not far from the beach, where the king was waiting to receive us. About five hundred paces from this house, the king's uncle, who is at the same time his step-father, and is here always called the king's father, came to meet us. He was an old man of seventy-five years of age, yet seemed to enjoy perfect health. His eye was very brilliant, and the features of his countenance displayed the marks of an intrepid and determined character. He was one of the greatest warriors of his time, and was now suffering from a wound on his eye, over which he wore a bandage. In his hand he held a long staff, with which he endeavoured, but in vain, to keep back the crowd that followed close upon us. He took me by the hand, and led me to a long narrow building, in which the king's mother, and all his relations of her sex, were seated in a

row, and appeared to be expecting us; and we had scarcely entered the precincts of this building, when the king likewise came to meet us, and welcomed us with much familiarity and friendship. The people here stood still, and separated in two bodies, the king's dwelling being tahbu. I was forced to sit down in the middle of the royal ladies, who all examined me with a great deal of curiosity, holding my hand by turns clasped within their's, and only dropping it to examine my clothes, the embroidery of my uniform, my hat, &c. There appeared so much frankness in all their countenances, that I was in the highest degree prepossessed in their favour, and presented them with some buttons, knives, scissars, and other trifles, which I had brought with me; but they did not appear to derive that pleasure from them which I had expected, and they seemed much more occupied with us than with our presents. The king's daughter, a young woman of about twenty-four years of age, and his daughter-in-law, who seemed a few years younger, were both of a remarkably good appearance, which even in Europe would not have been denied. They were wrapped in a yellow stuff, and their heads unadorned, except by their black hair, which was well smeared with cocoa-nut oil, and was tied in a bunch at the top. Their bodies, which were not entirely covered by the yellow stuff, were neither coloured nor tatooed; but half of the arm and hand was tatooed black and yellow, which gave them the appearance of short gloves, such as our ladies used formerly to wear.

After resting here, the king led us, accompanied by all his relations, to another building about fifteen paces from the first,

and which is appropriated to their meals.* Mats were immediately spread, upon which we seated ourselves, and our hosts seemed all so rejoiced at having us with them, that they knew not in what way to evince their satisfaction. One fetched us cocoa-nuts, a second bananas, a third water, while several of them sat down and fanned us. After staying about half an hour, we took leave and returned to our boats. The king did not accompany us; but his step-father did to the spot where he had first met us. An incalculable number of people surrounded us again, and many of them were very noisy, not however, as I believe, with any bad intentions, though perhaps the six men with their fire-arms, three of whom preceded and three followed us, were the chief cause of their quiet behaviour. At noon we again arrived on board, and I immediately sent off the long boat with empty water-casks, which returned in about three hours. The natives lent every possible assistance to our people; they filled the casks, and swam with them back through the surf; nor would it, without their help, have been possible for us to have procured more than one boat load of water in a day; and even then not without great exertions on the part of our men, and the risk of endangering their health. With the assistance of the natives we could with great facility send off the boat three times in the day, while our people had only to attend to and watch them, and during eight days, they only succeeded in getting one iron hoop from a cask, and this convenient mode of obtaining water cost us each time no more than a dozen pieces of broken iron hoop, about five inches long.

* In the next chapter this house will be particularly described when I speak of their places of abode.

Notwithstanding all our exertions we could not succeed in procuring hogs. In three days we had got but two, of which one was a present made in return for a parrot, and the other we received in exchange for a hatchet. We were therefore obliged to live, as at sea, upon the ship's provisions, and cocoa-nuts being the only things that appeared to sweeten the blood after so long a use of salt-meat, I purchased all that were brought for sale, and delivered out as many of them as our people chose to eat.

In the afternoon of the 10th May we received word from the shore that a three-masted ship was visible from the hills, and as I imagined that this ship must be the Neva, I immediately sent a boat with an officer to bring her into the bay. But we were too late, and the Neva remained at such a distance from the land that the boat returned without being able to fulfil its commission. The next morning I sent Lieutenant Golowatscheff to meet the Neva, and about noon we had the pleasure to see her enter the bay; but as it was calm, although I sent my barge to assist her, it was not until five in the afternoon that she came to an anchor near us. Captain Lisianskoy informed me that he had waited some days at Easter island in the hopes of finding us there; that strong westerly winds had prevented him from anchoring, but that he had sent a boat to Cook's bay to procure some bananas and potatoes from the natives. I had the satisfaction to learn that all was well on board the Neva, and that she had met with no accident since our separation.

On the 12th in the afternoon, just as I was going on board to Captain Lisianskoy, I received the unpleasant intelligence

of the natives of Nukahiwa being in a state of confusion, and that they had taken up arms, a report having been spread among them that their king was arrested on board my ship. The Neva's boat came along-side at the same moment, and the officer reported that it was with great difficulty he had succeeded in getting away, nothing but the persuasions of Roberts having prevented the natives from seizing him. Roberts in the mean time was in great danger of falling a sacrifice to their rage. This intelligence was to me the more inconceivable, as I had but just quitted the ship, and the king had gone on shore about half an hour before in one of our boats. He had passed the whole morning with us, and I had never seen him in better humour; for besides that he always received some present when he visited us, he had been shaved and washed with perfumed water, which seemed to make him infinitely happy. I instantly returned on board to inquire whether any one had insulted him; but nothing of the kind appeared, and I remained doubtful whether the king himself had not spread the report, though this seemed almost impossible, as he could have no cause of complaint. I now began to suspect that the Frenchman, from some malicious reason, perhaps envy at the Englishman's being preferred to him, had endeavoured to create a dispute between us, expecting to derive some advantage from it; and my suspicion seemed to be confirmed by the inquiries I made into the subject. The case was this: while I was at dinner, the officer of the watch informed me that the king, who scarce an hour before had gone on shore, had returned, accompanied by another person, with a hog, for which he demanded a small parrot. In about ten minutes I went upon deck, and found that the owner of the hog was already

gone, the parrot not having been immediately delivered to him. This surprised me, and being very anxious to have the hog, I requested the king would call back the impatient vender; he appeared not to mind the king's orders, and paddled the faster on shore. Immediately after, one of the king's attendants leaped over board, and swam after the boat, to persuade the man, as the Frenchman assured me, to bring the hog back; but this was not the case, for, as I afterwards learned, he was gone on shore with the news of my having put the king in irons. If this was not, as I believe, another invention of the Frenchman's, it was his duty to have informed me of the king's orders, which I might easily have foreseen would lead to unpleasant consequences. I had considered the whole affair as a trifle, which it really was; had not taken it up at all seriously; and still less did I appear to be angry, in which case he might have feared some strong measures on my part. The king remained on board another hour after this, and then went on shore in one of the ship's boats apparently well pleased. In the mean time the news had scarcely spread on shore of his being in irons, when every body snatched up their arms, and it was with difficulty that the Neva's boat had been able to get back. The king's arrival, who assured his subjects that no injury had been done to him, appeased them a little; but he either suspected himself that I was going to use violent measures against him, or the Frenchman had inspired him with this fear, so that I determined the next day to go and assure him that no violence was intended. A few days before this the king's brother had asked me, why I did not put some one in irons, as an American had done by one of the king's relations,* but I

* This American had been here about eight months before.

answered that so long as they conducted themselves in a friendly manner towards me, I certainly should do no one any injury, and I trusted we should part good friends.

Captain Lisianskoy accompanied me, and we set off at eight o'clock, having sent our long-boat at seven for water. We landed, accompanied by twenty men under arms, and our own party consisted of more than twenty persons all armed, while the crews of the two long-boats, both of which were fitted with a couple of one pounder swivel guns, consisted of eighteen men under the command of two officers. We might therefore have bid the whole island defiance, in case of any hostile attempt against us, but nobody appeared on the beach at our landing. Throughout the night we had seen fires in different places, and in the morning no one came on board with cocoa-nuts as usual, from all which we concluded that the public mind was not very quiet. We proceeded directly to the king's house, which was situated in a valley about a mile off. The way thither led through a copse of cocoa trees, bread-fruit, and birch trees; the grass grew so luxuriantly that it reached to our knees, and incommoded us very much as we walked; at length we came to a foot-path, where were several marks of an Otaheite custom, not very favourable to the cleanliness of the Nukahiwa people. From thence a hollow way, filled with rain-water up to our ankles, led us to a path, which was kept with the greatest cleanliness. We here entered a romantic, beautiful country, and found ourselves in a large forest, that seemed to reach to the chain of mountains behind. The greatest part of the trees in this forest were apparently about seventy or eighty feet high, and chiefly cocoa and bread-fruit

trees, as was easily to be distinguished by the fruit with which they were all loaded. Several winding rivulets, that rushed with considerable noise and rapidity from the mountains, and whose beds of large broken rocks formed the most beautiful cascades, crossed each other and watered the habitations of the valley. In the vicinity of these habitations, a number of plantations of taro-root and cloth-mulberry, laid out in great order, and surrounded with a neat enclosure of white staves,* bore the appearance of belonging to a people who had already carried cultivation to a considerable extent; and these delightful prospects assisted a great deal in removing the unpleasant sensations we experienced upon reflecting, that we were amidst the dwellings of cannibals, capable of the greatest crimes, and who commit the most unnatural acts without hesitation, or, indeed, without perceiving within them those calls of nature to which even wild beasts are awake.

The king met us about one hundred paces from his dwelling, whither, after a hearty welcome, he accompanied us. The whole family was assembled there, and seemed very much rejoiced at our visit; indeed they had reason to be so, for they received presents from every one of our party, and the queen expressed particular satisfaction at a small looking-glass which was given to her. I asked the king what had induced him to spread a false report, which had well nigh destroyed the harmony that had hitherto existed between us, and might have led to consequences not likely to have proved to his advantage.

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* The tree from which these staves are cut, in the language of Nukahiwa, is called *fau;* it is perfectly white and very light.

He assured me that he had never feared I should use him ill; but that the Frenchman had told him, I should put him in irons without fail unless the hog was brought on board; and this he had believed: my suspicion therefore of the Frenchman was verified. I made several handsome presents to the king and his family, and endeavoured to convince him, that unless I was very much provoked, I never would resort to violence against any one, and still less against him who was my friend.

After resting, and refreshing ourselves with cocoa-milk, we went, under the guidance of Roberts, to a morai or burial-place; but before we quitted the king's house, we were shewn his grand-daughter, who, as well as all the children and grandchildren of the king's family, is looked upon as etua, a deity. She had a house of her own, to which her mother, grandmother, and her nearest relations alone were allowed free admittance; the house being to all others tahbu. The king's youngest brother had this young goddess, a child about eight or ten months old, in his arms: I inquired how long the mothers use to suckle their children here, and was told that, with very few exceptions, they never nurse their own children; but as soon as a child is born, the nearest relations, among whom a dispute generally ensues which shall be its foster-mother, take the infant from its mother and carry it home with them: the child is not nourished with its mother's milk, but fed upon fruits and raw fish; and yet the men of Nukahiwa are of a colossal stature.

We set out on our way to the morai, passing by some mineral

springs, of which there are several here. The morai was situated on the top of a pretty high hill, which it cost us some trouble to climb, as the sun was near its height; it was in a thick wood, interwoven with bindweed, and seemed to be nearly impassable: we saw a bier upon a stand, but of the body upon it, nothing but the head was visible. In the outer circle were some statues carved in wood, intended to represent the human figure, and evidently the coarse work of some unskilful artist; near to these statues were some pillars wrapt up in cocoa-leaves and a white cotton stuff. We were curious to learn what was the intention of them; but could obtain no answers to our inquiries, than that they were tahbu.—Near the morai was the priest's house, whom however we did not find there. Every family has its separate morai: the one we visited belonged to the priests; and without Roberts, who reckons himself one of this, as well as of the king's family, we should perhaps not have seen any, for they are unwilling to shew them. In general they lie a good way inland upon hills; but this was an exception, not being far distant from the beach.

After Dr. Tilesius had made a sketch of it, we set out on our return to the boats: we could not however withstand the request of the friendly Roberts, to visit his house; nor did we regret the little round we were obliged to make in order to get there. It was built after the fashion of the island, was quite new, and stood in the midst of a wood of cocoa trees. Upon one side flowed a small stream, and upon the other, in the middle of a rock, was a spring of mineral water. We all seated ourselves round his house on the rocks which formed the banks of the rivulet, and refreshed ourselves, in the shade of the lofty cocoa trees

after our walk, which, owing to the extreme heat, had greatly fatigued us. About twenty of the islanders were busied throwing down cocoa-nuts from the trees, which others cleared of the husks, and broke with great skilfulness. The kernel quieted the hunger we began to feel, and we quenched our thirst with the fine cold milk, which was extremely refreshing. Roberts's wife, a pretty young woman of about eighteen years of age, seemed in some measure to have departed from the custom of her country, and, in our opinion, very much to her advantage; for she had not rubbed her body over with cocoa-oil, which, although it gives great lustre to the skin, produces a very powerful smell.

About one o'clock we got back very well satisfied with our excursion. The news of our visit to the king had, in all probability, spread itself immediately; for we found several persons upon the beach as usual, and upon our arrival on board the trade with the inhabitants had again resumed its vigour.

I had sent Lieutenant Löwenstern on the 11th May to examine the coast of Nukahiwa to the west of the bay of Tayo-Hoae; and in this excursion he had discovered a harbour about five miles from the bay, of which he brought me so favorable an account, that I determined to visit it, and went there on the 15th accompanied by Captain Lisianskoy, Lieutenant Löwenstern, Drs. Horner, Tilesius, and Langsdorff, and some officers of the Neva, in two boats, carrying with us several articles for trade and presents; as we hoped in this new bay to meet with a supply of provisions. After rowing about an hour and a half, we arrived there at ten in the

morning. At the entrance of the bay, the west side of which was formed by lofty and perpendicular rocks of a very wild but beautiful appearance, we found twenty fathoms water over a bottom of fine sand and clay. As you advance, on the east side there is another bay apparently strewed with rocks, and quite exposed to the west, which occasions a very heavy surf. After passing the western point of this rocky bay, you open upon the finest bason that can be imagined: it lies in a north-east and south-west direction, is about 200 fathoms deep and 100 wide: at the bottom of it is an even sandy beach, and behind this a green flat resembling a most beautiful bowling-green. Streams of clear water flowed in various places from the mountains that rise beyond the beach and the green flat behind it; and in a very picturesque and inhabited vale, lying a good deal to the northward of the entrance, and by the natives called Schegua, is a rivulet, which, considering the size of Nukahiwa, cannot be deemed small, that empties itself into the northern side of the bay. As this side is exposed to the wind, the surf renders the landing here more difficult; yet I think that at high water a boat of inconsiderable burthen, would have no difficulty in entering the rivulet: at all events, there can never be any in procuring water here; for you have only to anchor your boats just outside the breakers, and the natives, as I have already observed, will, for a few small pieces of iron, not only fill your casks, but swim with them to you through the surf.

The bason is so completely land-locked, that the most violent storm would scarcely have any effect upon the water, and a ship in need of repairs could not wish for a finer harbour, for such a purpose. Not quite fifty fathoms from the eastern shore,

the water is five fathoms deep, and at ten fathoms from the beach, there is not more than ten or twelve feet depth; a ship might unload here with the utmost convenience, and even if she did not want repairing, I should prefer this harbour to the bay in which we anchored. Of cocoa-nuts, bananas, and breadfruit there is here a superabundance; but the scarcity of animal provisions is perhaps as great as in Tayo Hoae. The chief advantage which this bay possesses over the others is, that, as you can anchor about a hundred fathoms from the land, the king's house and all the habitations of the valley lie so completely under the guns of the ship, as to render an attack on the part of the natives quite impossible. This same reason makes it unnecessary to send a covering party with any boat going on shore, as you must do in Tayo Hoae, where the ship cannot anchor within less than a mile and a half of the beach; besides that in the latter place, the shore being either swampy or covered with large stones, renders it necessary to go inland in order to feel the beneficial effects of a wholesome land air. It would be very difficult, too, to find a commodious situation in the neighbourhood for an hospital, and in case it were wished to erect the observatory, it could only be done at the risk of having the instruments destroyed, as the landing, on account of the heavy surf, is extremely difficult; while in the new bay, on the contrary, the observatory might be erected on the green flat close to the beach, as well as an hospital, if it were desired; nor can any walk be imagined more beautiful than the one along the rivulet in the vale of Schegua. There is likewise no danger of any sudden attack, if such an event were meditated, in the neighbourhood of the ship, as the path from Schegua to this green flat, is either over rocks, which form the northern shore,

or over several hills, exposing the assailants to be seen long before they could reach the ship. The chief fault of this harbour is the narrow entrance to it from the sea which in one part is only 120 fathoms wide, but though this small entrance is of course attended with difficulties, it is by no means dangerous; for the depth being from 15 to 20 fathoms, it is very easy to warp out if the wind be moderate; even from Tayo Hoae, it is scarcely ever possible to get out without warping, as we found by experience.

The natives had no particular name for this harbour, but they call the vale in which the houses are situated, Schegua. I have therefore named it Port Tschitschagoff in honor of the minister of marine. It lies in latitude 8° 57′ S. and longitude 139° 42′ 15″ W.

Much as I was pleased with the country near the houses of the king of Tayo Hoae and of the Englishman Roberts, I thought the vale of Schegua by far more beautiful. The rivulet flowing at the foot of a chain of lofty mountains through the valley, and which was rendered more beautiful by the abrupt descent of its bed, added certainly very much to the appearance of this place. The inhabitants had built their houses on the left bank of the stream, and they seemed to be more comfortable than those of Tayo Hoae; the men also wore a much better appearance. There were several larger plantations of the taro root and cloth mulberry, and, what constituted their chief wealth, a number of hogs, but of these they were equally avaricious, and we could not purchase any. The king

of the valley, whose name was Bauting, and whose gigantic stature rendered him very conspicuous, was the only one who brought a hog for sale; but he could not prevail on himself to part with his treasure, and after having concluded his bargain four times, and at last on very advantageous terms to himself, he immediately repented of it and returned us our goods, though he was highly pleased with them. Much as I was vexed at his selfishness, or rather indecision, I did not quit him, however, without making him some presents. Our arrival seemed to have given universal satisfaction; every one smiled upon us, and we did not remark any disorderly shouting or impertinent curiosity, although we were the first Europeans who had ever landed among them. They all brought bananas and bread-fruit for sale, for which we gave them small pieces of old iron hoop. The women of this valley were very different from those of Tayo Hoae; they were invariably better dressed, and two of them might really be reckoned very handsome; none of them were quite naked, but all were wrapt up in long shawls of a yellow colour, and were particularly distinguished from their neighbours by a piece of white stuff which they wore with much taste as a turban, and which was very becoming to them. They were all well rubbed over with cocoa oil, which, on account of the lustre it gives to the skin, they consider as a great ornament: we did not remark this polish when they first came to meet us in Port Tschitschagoff upon our landing, their curiosity to see us having perhaps prevented them from adorning themselves; but when after a few days we returned to Schegua they received us with much greater splendour. Their hands and arms and the lobes of their ears were all tatooed, they had even upon their lips some tatooed streaks. They did not ap-

pear possessed of any more declicate notions of modesty and female reserve than their neighbours of Tayo Hoae, and took particular pains to become better acquainted with their new guests; their pantomime being so supplicating and at the same time so expressive, as to render it impossible to mistake their meaning. The people who stood around approved in the highest degree of their grimaces; they appeared to have been called upon to play this part, and I must do them the justice to say, that, in the spirit of the female sex in this quarter of the globe, they played it remarkably well. As we passed through the valley, we saw, about a hundred paces from the king's house, a large even space, in front of which was a stone construction about a foot high and near a hundred fathoms long, displaying a degree of skill approaching to which we had seen nothing in Tayo Hoae. The foundation-stones were laid very even, and so closely united that no European workman could have joined them better: Roberts told us that this platform served the spectators as a seat at their great dances.

In the afternoon of the 4th we embarked, but the wind being against us, we did not arrive on board until eight in the evening. Drs. Tilesius and Langsdorff, who returned by land, were not back until the next morning: they were so wearied with their walk which led over very lofty and steep hills, as to find themselves obliged to pass the night in a house about half way, belonging to a friend of Roberts, who had acted as their guide on this journey.

On the 16th May we had completed our supply of wood and water, on the 17th at day break I unmoored, and at eight

we weighed anchor. As the harbour is surrounded by lofty hills which occasion an almost incessant shifting of the wind, it is very difficult to sail out, and we found it necessary to warp, notwithstanding the great distance and the extreme heat made the task very laborious. At first the wind blew pretty steady from the shore, and we had half crossed the bay, when it suddenly became so variable as to oblige us at every moment to put the ship about. The current carried us more and more to the westward, and compelled us to let go an anchor about 120 fathoms from the western shore; close upon the beach there were 20 fathoms of water, so that the great vicinity of the coast was not dangerous. We immediately carried out a kedge anchor, and began to warp into the middle of the bay, when on a sudden a gust of wind sprang up, which was at first too violent for our small anchor and forced us to let go another. The Neva had also to struggle with this treacherous wind; and perceiving the little success we had in attempting to sail out of the bay, she let go her anchor likewise, though at a greater distance from the land. We got out another warp anchor, and at four in the afternoon were again in the middle of the bay; the wind seemed disposed to be more favourable, and I ordered all the sails to be cast loose, in the hopes of still being able to get to sea this afternoon. But we were yet to be exposed to the caprice of the wind, for it veered round in the same moment, and for a third time obliged us to let go the anchor. The men had been since four in the morning constantly at work, with a heat of 23 degrees, and I therefore determined to pass the night here to enable them to rest. About eight in the evening the wind freshened, and continued so throughout the night; at day-break the next morning we sailed out of the bay, the

weather continuing as unfavorable as the day before. On a sudden it came on to blow hard with violent rain; and as the bad weather made me anxious to get clear of the land as soon as possible, I was obliged to carry the Frenchman, Joseph Cabritt, who had come on board late the preceding evening, and had kept out of sight, to sea with me. He appeared rather to rejoice at, than to regret, this circumstance, and I firmly believe he came on board with the intention of sailing with us: Roberts was thus, without thinking of it, delivered from his bitterest enemy.

But before I proceed with the history of our voyage, it will, perhaps, not be superfluous to add such account of the situation of the Washington islands, and of the manners and customs of the inhabitants, as, during our residence of ten days upon the island of Nukahiwa, the largest of the group, we were enabled to collect with the assistance of the two Europeans whom we found there.

CHAPTER VIII.

GEOGRAPHICAL DESCRIPTION OF THE WASHINGTON ISLANDS.

First Discovery of the Washington Islands—Reasons why this Name should be preserved—Description of the Islands of Nukahiwa, Uapoa, Uahuga, Mottuaity, Hiau, Fattuuhu—Little Advantage which Ships would derive from touching at the Washington or Mendoza Islands—Description of the Southern Coast of Nukahiwa, and the Bay of Anna Maria—Directions for entering it—Weather and Climate—Winds and Tides—Astronomical and Nautical Observations in Port Anna Maria.

THE group of Washington islands was discovered in the year 1791, by Captain Ingraham, of the American merchant-ship Hope, of Boston, in his voyage from the Mendoza islands to the north-west coast of America. A few weeks afterwards they were again seen by Marchand, in the French ship Le Solide, whose voyage has been so admirably related by that learned mariner Fleurieu. Marchand considered his as a new discovery, and landed upon one of the islands, which the officers of his ship called *Isle Marchand* after him, taking possession of it in the name of his government. He visited and determined the situation of the other islands; gave names to all of them, except to that of Uahuga, the easternmost one, which escaped his notice; and he called the whole group *Isles de la Révolution.* In the course of the next year these islands were again visited by two persons of different nations; Lieutenant Hergest

of the British navy and commander of the transport Dædalus, who had been sent out with provisions and other necessaries to enable the celebrated Vancouver to pursue his voyage. He obtained sight of these islands in March 1792, surveyed them with great accuracy, gave them names, discovered two bays on the southern coast of Nukahiwa, and landed in one of them which he distinguished as Port Anna Maria. Vancouver called the whole group Hergest's islands, in remembrance of his unfortunate friend,* whom he considered as the first discoverer. Some months after Hergest, an English merchant ship, the Butterworth, commanded by Captain Brown, sailed through these islands, but without giving them any new appellation,—a favour conferred upon them four times in the space of two years. He landed on the island of Uahuga, and examined its western coast. The last discoverer of these islands was Josiah Roberts, captain of the American ship Jefferson. Roberts had been three months in Taowatte, from whence, in 1793, a native of the island Uahuga conducted him to this spot; he is, perhaps, the first who gave them the name of Washington islands, as appears by Rochefaucault's Voyage in America, which contains a short account of Roberts's discovery.† Ingraham had also called Uahuga by the name of Washington island;‡ it is uncertain which of the two was the first to introduce the name.

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* Hergest, as well as Gooch the astronomer, who was sent out to join Captain Vancouver, was murdered in Woahoo, one of the Sandwich islands.

† Voyage dans les Etats Unis par La Rochefaucault Liancour, tom. 3, p. 23. The names of the islands are however very much distorted, Uahuga for example is called Onhava.

‡ Zach's Monthly Correspondence, vol. 1, p. 348. Extract of the Memoirs of the Massachusetts Company, for the year 1795.

At all events the honor of the discovery of these islands belongs to the Americans; and whether Ingraham gave the name of Washington to one, or Roberts to all of them, it is but just that it should be preserved. Even Fleurieu rejects that of *Isles de la Révolution*, which Marchand, their second discoverer, assigned to them, without however adopting that of Washington; for he combines them with the group to the S. E. of them, known by the title of the Marquis de Mendoza's islands. It is without doubt a great advantage to geography to reduce as much as possible the names upon charts, and to bring as many islands as may be under one appellation; but should not an exception be made in favor of that of Washington, which must prove an ornament to any chart? Is it not according to the strictest justice, that the first discovery of the Americans should be preserved in the annals of naval history by a name peculiar to themselves? and is it allowed to strike out of the charts, the immortal name of the founder and protector of a great state, by which one of its grateful citizens had dedicated a new group of islands to it; merely to unite this group with another that had been discovered and named 200 years before? I leave it however to the geographers, to admit or reject my proposition, and in the mean time have preserved to these islands the name of Washington upon our charts.

They lie to the N. W. of the Mendoza islands, and consist of the following eight islands, stretching from the 9° 30′ to the 7° 50′ of S. latitude, and the 139° 5′ 30″ to the 140° 13′ 00″ of W. longitude. As some charts omit the proper names altogether, I shall mention them, with those assigned to each of them by their different discoverers.

1. Nukahiwa.*—This island is the chief of the group: its greatest length from the south-east to the west point is about seventeen miles; but I cannot speak positively with regard to its circumference, as we did not examine the north side. Its direction from the south-east to the west extreme is E. N. E. and W. S. W.: from the south point it runs in a northerly line, and probably then N. E., as from the south-east point it trends due N. This, which Hergest called Cape Martin, is, by our observations, in latitude 8° 57′ and longitude 139° 32′ 30″. The south extreme is 8° 58′ 40″ S. and 139° 44′ 30″ W. and the N. W. point 8° 53′ 30″ S. and 139° 49′ 00″ W. Ingraham called this Federal Island, Marchand Isle Beaux, Hergest Sir Henry Martin's Island, and Roberts gave it the name of Adams island.

2. Uahuga lies the most to the eastward of this group: the west end by our observations lies in latitude 8° 58′ 15″ S. and longitude 139° 13′ 00″ W. 87° S. E. of point Martin in the island of Nukahiwa, from whence it is distant eighteen miles. Its direction is E. N. E. and W. S. W. and its extreme length nine miles. On its west side is a bay, but we did not examine it: Marchand was not aware of this island at all; Ingraham named it Washington island, Hergest Riou island, and by Roberts it was called Massachusetts island.

3. Uapoa is the southernmost of the Washington islands. Its

* During our stay upon the island of Nukahiwa, I took great pains not only to learn the name of it correctly, but to ascertain, as nearly as possible, the particular properties of their language, to enable me to write the names with accuracy. In no instance have I met with the letter R, with which Wilson begins the names of several islands.

northern end bears directly S. of Port Anna Maria, distant about twenty-four miles: and is by our observations in 8° 21′ 30″ S. and 139° 39′ 00″ W. The officers of the Solide called this island Isle Marchand, Ingraham named it Adams island, and Roberts Jefferson island. As we did not sail round it we saw nothing of the rock shaped like a sugar loaf, called by Marchand Le Pic, and by Wilson six years later, the Church, and of which Hergest in his description of the island * says that it resembles a cathedral church in the Gothic taste; neither could we see the white rock that Marchand, on account of its shape, called Obelisk, and which is probably the same that Wilson, in his chart, has denominated Stack island.

4. At the distance of about a mile and a half to the S. E. from the southern point of Uapoa, is a small flat island about two miles in circumference, which Marchand called Isle Platte, Ingraham Lincoln, Wilson Level, and Roberts Revolution Island. I could not learn the proper name of this island, which, according to Marchand's observation, lies in latitude 9° 29′ 30″ S. The strait between this and Uapoa must be safe, Roberts having sailed through it.

5, 6. Mottuaity.—Two small uninhabited islands, lying E. and W. of each other, and separated by a channel about a mile wide. They lie N. W. by W. of the south extreme of Nukahiwa, distant about thirty miles. The inhabitants of the adjoining islands visit them on their fishing excursions; but they never undertake this voyage but when driven to it by the

* Vancouver's Voyage, 2d vol. quarto edition.

greatest necessity; even this trifling navigation, owing to the indifferent construction of their canoes, being attended with considerable danger to them. The situation of these two islands, which we did not perceive, is given differently by Marchand and Hergest, though the latitude varies only a few minutes; but as we found Hergest's longitude of Nukahiwa to agree with ours, determined by a series of lunar observations, as mentioned in the sixth chapter, I shall give the preference to his description of the Mottuaity islands, namely 8° 37′ 30″ S. and 140° 20′ 00″ W. Ingraham called them Franklin and Roberts Blake island, probably at a distance mistaking the two islands for one, nor, indeed, have the inhabitants of Nukahiwa but one name for both of them.*

7, 8. Hiau, Fattuuhu.—Two uninhabited islands, the first of them eight miles long and two wide. The south point of Hiau lies, by Hergest's and Gooch's observations, who landed upon it and found a number of cocoa trees, in 7° 59′ S. and 140° 13′ W. The middle of Fattuuhu, a much smaller island, and of a similar form, is in 7° 50′ S. and 140° 06′ W. They lie about sixty miles N. N. W. of the west end of Nukahiwa; and the inhabitants of the neighbouring islands visit them for the sake of their cocoa-nuts. Ingraham called these two islands Knox and Hancock islands; Marchand named the first Masse, and the other Chanal; Hergest called them Roberts's islands, and Roberts gave to the first the name of Freemantle, and to the other that of Langdon island.

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* Roberts frequently asked me to land his enemy, Joseph Cabrit, the Frenchman, upon one of these islands.

As the scarcity of animal provisions, which we felt even at Nukahiwa, the largest and, from the account of the inhabitants, most fruitful of the group of islands, is extreme, I feel it right rather to warn the navigator against them, than to recommend his touching either at the Mendoza or these islands, in his passage across this great ocean; the want of hogs being equally great at the Mendozas. Cook, the first of modern navigators who touched at these islands, obtained very few, in comparison of what he required for his ship's company, and Marchand, seventeen years later, still fewer in proportion. This impossibility of procuring a sufficient quantity of hogs, does not proceed so much from a scarcity of these animals, (although they are not in such plenty as the relation of different navigators describes them to be in the Sandwich and Society islands,) as from the unwillingness of the natives to part with them, on account of their custom of giving feasts upon the death of their chiefs, or priests, when hogs are considered as the most costly as well as the most dainty food. I have already described with what difficulty the king of Schegua prevailed on himself to sell one of his hogs, and how, after having several times concluded his bargain, he still would not part with this treasure, although he possessed several, and we counted a considerable number in the valley. Even of vegetable provisions the supply is not very plentiful; for although a sufficient quantity of cocoanuts for daily consumption may be procured, this is all, and there are very few bananas and breadfruit, at least in Port Anna Maria; and in Port Tschitschagoff, though we procured more bananas, we could get no breadfruit. Ships, therefore, must not expect, after a voyage round Cape Horn, which, if they sail from a port in the Brazils, they have little chance of weather-

ing in less than three months, to be able to refresh their crews at these islands, sufficiently to prosecute their voyage either to America or to Kamtschatka, as it is very doubtful whether they can even supply them with provisions for their daily consumption. Wood and water are the only two articles they may depend upon procuring in sufficient quantity, and without the assistance of the natives, who swim with the water casks through the heavy surf, with a facility that surprises an European, while he is quite unable to imitate it, even this task would be very arduous, and might also prove dangerous; for upon any sudden disagreement the water party would be instantly cut off; and such a disagreement may easily happen, any slight misunderstanding giving rise to it, as we ourselves experienced. Ships bound to Kamtschatka by the way of Cape Horn, would therefore do better to sail directly from the Brazils to the Society islands, Bougainville's *Isles des Navigateurs*, or to the Friendly islands, where they may supply themselves at least for six or eight weeks with fresh provisions. The distance is likewise shorter, and would afford an opportunity of exploring the hitherto little known islands of these parts, such for example as the group of Fidji, Babacos, Hapae Vavao, &c. and of discovering others, that no doubt abound in this ocean. On the other hand, ships destined for the north-west coast of America or the island of Kodiak, would find it more advantageous to put into one of the ports of Chili, where they will not only find an abundance of provisions, but what is of the greatest importance to Kodiak and the colonies on the coast of America, may be supplied with Indian corn and wheat. The run from Chili to Kodiak is not too great; those who deem it so, may touch at the Sandwich islands, which do not lie much out of the way.

Although I have not spoken very favorably of the advantages of these islands, so far as regards the supply of provisions to be procured from them, I think it necessary to give a description of the bay of Tayo Hoae and the southern coast of Nukahiwa, of which we were enabled to make an accurate survey. This coast consists of lofty rugged rocks, very steep towards the sea, and from which the most beautiful cascades of water are precipitated; among them one at the southernmost end of the island is particularly remarkable, nor would it be easy to meet with any thing more beautiful. The bed of this waterfall appeared to be several fathoms wide, and the water was precipitated from a rock, the height of which might be estimated at 2000 feet; this cascade, which was visited by Dr. Tilesius and Dr. Langsdorff, forms the river that empties itself into Port Tschitschagoff. The chain of rocks is connected with the lofty and for the most part barren mountains that compose the interior of the island, but to the north-westward of the southern point, the coast is lower and flatter, and rises gradually towards the centre; but we did not approach this side sufficiently near to distinguish any of the bays, that in my opinion must be found there, although from Hergest's description the west side is rocky and without a single one. The Englishman Roberts often told us of a valley on that side of the island, which he described as very populous and capable of raising 1200 warriors; but as he never was there himself, he could not inform us whether in the vicinity of this valley, the name of which is Hottyschewe, there is any harbour, where ships might anchor with security: on the east side, near the north extreme, is a bay, where the Neva first made acquaintance with the natives of Nukahiwa.

On the southern coast there are three harbours where ships may lie in perfect safety: Home bay, which Hergest called Comptrollers bay, Port Anna Maria, and Port Tschitschagoff. Between Port Anna Maria and the latter, there are several small bays or bights, that do not, however, afford an anchorage, being too little defended from the wind, and full of rocks. In the preceding chapter I have sufficiently described Port Tschitschagoff, and we only sailed by Comptrollers bay without examining it, I shall therefore confine myself here to a description of Port Anna Maria.

As soon as you obtain sight of Nukahiwa, coming from the eastward, you immediately perceive Port Martin: it has a very striking appearance, and cannot possibly be mistaken for any other inlet of this island. The land adjoining it forms the east extreme of Comptrollers Bay; the point itself advances and consists of steep craggy rocks, that seem to have experienced some violent revolution; and a ship may approach within an English mile of this headland, as well, indeed, as of the whole southern coast, without danger, as there is a depth of from thirty-five to fifty fathoms over a fine sandy bottom. Shortly after, a black rock appears in sight about a quarter of a mile from Port Martin, which you leave on your right hand, when Comptrollers bay opens upon you lying north and south, and a little more to the westward is another smaller one. When Comptrollers bay is quite open, you steer parallel with the coast, the direction of which is E. N. E. and W. S. W. for five or six miles, until you perceive a small island called Mat-

tau,* not more than thirty fathoms from the last point of the entrance. Upon opening this narrow passage you steer directly to the island, and pass within about 100 or 150 fathoms of it, when Port Anna Maria lies immediately before you. On the west side of the entrance is another island of the same size as Mattau, and like it separated from the main land by a channel about thirty fathoms wide, and only navigable for canoes. This small island, called by the natives Mutonoe,† may be known by a rock that lies about ten or fifteen fathoms from it. The islands of Mattau and Mutonoe form the entrance to Port Anna Maria, and care is necessary, both in entering and going out, not to approach too near to the westward island, or indeed to the westward shore, as an easterly wind, blowing even moderately, and a pretty strong current, render it dangerous. If there be a steady fresh breeze in the bay, the entrance is perfectly safe; and a vessel may near the coast on either side within fifty fathoms, or even still closer to the eastern shore, nor is there any thing whatever to render it in the least dangerous; but with a moderate and unsteady wind, such as generally prevails in the bay, owing to the lofty mountains that surround it, no reliance must be placed on these unsettled breezes which veer in one moment from east to west, now coming in violent gusts, and immediately after falling perfectly calm. Under these circumstances it is necessary to warp, which mode of getting in and out of the harbour, notwithstanding it is so labo-

* The natives have given it this name because they catch fish near it: Mattau in the language of Nukahiwa being a fishing line.

† Mutonoe signifies a large island, and this name is given it in derision of its small size.

rious, and on account of the burning heat so extremely fatiguing, is the only one to be depended on. About three quarters of a mile from the northern shore the bay stretches itself in an east and west direction: you then approach to about a quarter of a mile of a very prominent hill on the east shore, where the least uncomfortable landing place will be found, and bring up in about fifteen fathoms water, mooring with your anchors in an east and west direction, and at the distance of about half a mile from a small rivulet on the northern shore, where a supply of water may be procured. The east has a decided advantage over the other side, the currents not having the same effect upon the ship; and during our stay there of ten days, our cables were not once fouled, while the Neva, which lay on the west side, was obliged almost every day to clear her anchors.

The climate of the Washington as well as of the Mendoza islands, between which, owing to their vicinity, there cannot be much difference, must be always very sultry. In Marchand's voyage it is said, that at Port Madre de Dios in the island of Santa Christina, the thermometer stood at 27° in June. During our stay at Port Anna Maria, the greatest height the thermometer attained on board the ship was 25° degrees; but it generally stood at 23° and 24°, and the heat on shore was in all probability two degrees greater. Notwithstanding this the climate appears to be very healthy, and the Europeans whom we found here, assured us that it could not be more so: an assertion thoroughly justified by the fresh appearance of the natives.

The winter months, as is always the case between the tropics, constitute the rainy season; but this is said not to continue long in these islands, ten months and more frequently passing without a drop of rain. When this unfortunately happens, a general famine ensues attended with the most dreadful consequences, and inciting the inhabitants to acts of a more horrible nature than any other people can afford an example of.

The reigning wind between these islands is the south-east trade wind, which varies some degrees either to the east or south; south west winds* are however felt here, and blow for a pretty long continuance; when the inhabitants of these islands avail themselves of it to visit their neighbours to the south-east. In Port Anna Maria the land and sea breeze blew alternately every night and morning, but by no means regularly, and always very faintly; except now and then a violent gust of wind proceeding from the mountains and cavities between them.

I have already stated in the preceding chapter that no astronomical instruments were carried on shore; but from the observations which Dr. Horner made on the days of our entrance into, and departure from port, he determined a new rate for our watches.

On the 18th May, No. 128 was later than mean time at Greenwich - - - - - = 7*h*. 51′ 24″

* The islanders have proper names for each of these winds.

And lost daily - - - - = + 21′ 3″

No. 1856 was later than mean time at Greenwich - - - - - = 10*h*. 15′ 08″

And lost daily - - - - = — 24′ 50″

Pennington's small chronometer was found to be perfectly useless as such, and Captain Lisianskoy gave me a box time-keeper by the same maker. The daily rate of this watch, which on the 18th May was later than mean time at Greenwich by = 1*h*. 49′ 09″, was — 16′ 40″.

The latitude of the entrance of Port Anna Maria between the islands of Mattau and Mutonoe is 8° 56′ 32″ S. The latitude of the watering place on the north side of the bay 8° 54′ 36″ S.

The longitude of Port Anna Maria at the entrance, deduced from 42 sets of lunar observations taken by Dr. Horner and myself between the 29th April and 4th May, and from the 4th to the 7th May at noon, by a mean of the chronometer No. 128, reduced to its new rate of going, is 139° 39′ 45″ W.*

The longitude by No. 128 according to its rate at St. Catherine's is - - - - - - 140° 42′ 30″

By 1856, according to its rate of going at St. Catherine's,

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* This determination of the longitude of Port Anna Maria agrees within one minute of that found by Lieutenant Hergest and the astronomer Gooch, but is nearly half a degree more to the eastward than Marchand states it to be.

which had increased two seconds at Cape Horn, it was found to be - - - - - - =141° 29′ 30″

The variation of the compass by a mean of the observations made on the 7th and 18th May in the vicinity of the bay was found to be = 4° 36′ 30″ E.

The heavy surf rendered any accurate observations on the ebb and flood almost impossible, but it was ascertained that they changed invariably every six hours, the flood setting from the east. At full and new moon it is high water between four and five o'clock; but although the height to which it rises cannot be correctly stated, it does not exceed three feet.

CHAPTER IX.

DESCRIPTION OF THE INHABITANTS OF NUKAHIWA.

Account of the Natives—Personal Beauty of the Men—Their strong Health—The Women—Tatooing—Dress and Ornament of both Sexes—Houses—Associations, Tools and Household Furniture—Their Food and Cookery—Fishing—Canoes—Cultivation—Employment of the Men and Women—Form of Government and Administration of Justice—Family Relationship—Art of War—Truce and cause of it—Religion—Mourning Ceremonies—Tahbu—Charms—Roberts—Music—Population—General Remarks upon the Inhabitants of this group of Islands.

ALTHOUGH of all the inhabitants of this vast ocean, I have only seen those of the Sandwich and Washington islands, still I think I may say, with some degree of certainty, that the latter are not exceeded by any of them in personal beauty; and from the description in Cook's different voyages of the other islands of this part of the globe, their inhabitants will be found to bear no comparison with those of the latter group. Even the accounts given by Cook and Foster, of those of the Mendoza islands, leave no doubt of the fact; nor is their personal beauty, as in all the other islands of this ocean, a distinction which nature has giving to the erihs or nobles, but exists here almost without an exception, perhaps, owing to the more equal division of property. The hitherto but little enlightened Nukahiwer does not acknowledge in the person of his king, a tyrant to whom he must sacrifice his best power and abilities, without daring to consider his own preservation, or that of his family. The very small proportionate number of nobles, who consist

only of the king's family, and the little authority which they possess, leave him more liberty to work, while they ensure to him a free possession of his land, so that, with very few restrictions, every one can have a share.

The Nukahiwers * are invariably of a large stature, and well made; they are very muscular, with a long handsome neck; have a great regularity of countenance, and an air of real goodness which was not belied by their dealings with us: but when we consider the cruelties of which these men are capable, the prejudice in their favour which the beauty of their person is very likely to create, soon vanishes, and their countenance seems to indicate nothing but apathy. An animated eye none of them possess. By tatooing their bodies very much, and rubbing them with a dark colour, they acquire a black appearance; otherwise their natural colour is clear, at least that of the boys and women who are not tatooed, was so; nor do they differ very much from the colour of Europeans, being only rather more yellow. These islanders are besides remarkable for having no deformed persons among them, none of us at least saw any, and their bodies are besides very free from biles and sores, owing to their great temperance; for the custom of drinking kava, so common to all the islands of this ocean, and the immoderate use of which is so prejudicial to the health, as frequently to occasion a distortion of the body, is

* I can only speak of the inhabitants of this island whom I know: but the description of the Nukahiwer will refer equally to the natives of all the group of Washington, as well as Mendoza islands, among whom there is a perfect resemblance in language, government, manners and customs.

only known here to a few, and is never observed but with the greatest temperance. The Nukahiwers are in the enviable possession of the most constant health, and they have hitherto been so fortunate as to escape the venereal disease: as they are free from complaint, so they are ignorant of all medicine. Their fear of the kaha, a species of charm supposed to produce sickness, and of which I shall speak hereafter, increases perhaps, by its influence on the imagination, any disposition to illness; but its remedy, the removal of the charm, sufficiently distinguishes it from common disease; and their whole medical system consists in binding up wounds, in which the king is said to be particularly skilful.

Among the very handsome people of this island, we observed two in particular who excited the admiration of us all. The one was a great warrior of Tayo Hoae, and, at the same time, what, in the language of the country, is called Fire-lighter to the king;* his name was Mau-ha-u, and he was perhaps one of the handsomest men that ever existed: he was six feet two inches high, and every part of his body perfectly beautiful. The other was Bauting, king of the vale of Schegua, who, notwithstanding his age, for he certainly was not less than fifty, was still extremely handsome.

The women all looked well; at least nothing could be said against their countenances. A well proportioned head, a face rather round than long, a large sparkling eye, blooming

* I shall hereafter have an opportunity of relating wherein the business of Fire-lighter consists.

colour, very good teeth, curled hair, which they ornamented with a white band, in a manner very becoming to them all, and the remarkably clear colour of their bodies, may perhaps entitle them to a preference over the inhabitants of the Sandwich, Society and Friendly islands;* yet an impartial eye might perceive many faults in them, which the companions of Mendaña and Marchand either overlooked, or would not discover. Their form, for instance, is any thing but beautiful; their person is generally short, and without carriage, and this is the case even with girls of eighteen; their gait is likewise awkward and unsteady, and their lower stomach particularly large: their ideas of beauty must be very different from ours, otherwise they would take more pains to conceal their defects; a piece of stuff of middling size, wrapped carelessly round them, being the only covering, and that an incomplete one, of their beauties as well as their imperfections. Thomson's

"When unadorned adorned the most,"

cannot be well applied to the Nukahiwers. The expression of mildness and feeling common among the females of Otaheite, and even the countrywomen of Waini,† in whose looks it is not to be mistaken, would be sought in vain here: instead of

* In the vale of Schegua in particular, we saw several who looked remarkably well, and adorned themselves with more taste than their neighbours of Tayo Hoae.

† This was the name of a girl of the Sandwich islands, whom Mrs. Barclay, while accompanying her husband on his voyage to the north-west coast of America, took with her from Owaihi, with the intention of carrying her to Europe, but left her in China. Captain Meares was to have conveyed her back to her own country, but she died on the voyage. See the portrait of this beautiful girl in Meares's Voyage, page 27 of the original edition.

this, they are remarkable for a degree of lewdness, (for coquetry would be much too mild an expression,) which utterly destroys the charm of their few personal advantages with all but the coarsest of mankind.

As soon as a Nukahiwer arrives at the age of puberty, his whole body is tatooed; an art carried to a much greater perfection in this island, than in any other; as they paint, in fact, their bodies with different figures, rubbing a pleasing colour into the skin, which is first scratched until it bleeds. Black is the colour generally used for this purpose, which after some time takes a bluish tinge. The king, his father, and the high priest, were the only persons who were coloured quite black, nor was any part of their bodies left unadorned; the face, eyelids and even a part of their heads, from which the hair had been shaved, being tatooed. Neither in the Society nor in the Friendly islands is this customary: in the latter the king alone is not tatooed; and it is only in New Zealand, and the Sandwich islands, as Captain King relates, where the face is tatooed. The New Zealander and Nukahiwer have a similar mode of performing this operation: for instance, they not only mark the body with single upright figures, or animals, as in the Sandwich islands; but represent upon it, in the most perfect symmetry, connected ornaments in concentric rings, and knots, which add greatly to the beauty of its appearance. The women only tatoo their hands and arms, the ends of their ears, and their lips. The lower classes are less tatooed, and many of them not at all; and it is therefore not improbable that this ornament serves to point out a noble, or, at any rate, a distinguished personage. There are some among

them, who have particularly acquired this art, one of whom took up his residence on board the ship, where he found sufficient employment, as almost all the sailors underwent the operation.

The men are not circumcised, but some of them had the foreskin cut straight down, which is said to be done with a sharp knife; and, like the inhabitants of St. Christina, they tie the extremity with a knot. That this, as Fleurieu states, should be done as a protection against vermin, or as a refinement in sensuality, is not likely; and the contradictory notions of modesty, apparent among them, make it much more probable, that their whole sense of shame is founded on the wish to conceal from the other sex what nature herself has covered. At any rate, the modest beauties who swam round our ship, expressed a great degree of horror, when the accidental wants of one of the crew shocked their eyes with such a sight; and Roberts confirmed this notion, adding, that the women of Nukahiwa are quite obdurate with regard to those, who do not observe this fashion.

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The men always go naked, and in this respect even the king was not different from the rest; for I do not consider as clothing, the small coarse piece of stuff, made of the bark of the cloth-mulberry plant, which they wear round their loins. This girdle, in the Friendly islands called *maro*, is known to the Nukahiwers by two different names, according as it is made of coarse or fine stuff. The first kind they call tschiabu, and the latter eatu; and even this girdle is not worn by all the Nukahiwers, for the handsome Mau-ha-u, for instance, always affected to go

naked; and, although on two occasions I presented him with a girdle, he came on board the next time without it. Mats are sometimes used among them, and the king's son-in-law, though he indeed was the only person, always came to the ship in one of a very coarse kind, and fastened under the chin in such a manner as merely to cover the back. Neither the nobility, nor even the king himself, have any state dress; and this is perhaps less owing to their republican disposition, than to their poverty, Captain Cook having seen the king of the island of Christina in a dress adapted to state purposes.

The people of Nukahiwa have no want of ornaments, nor do these appear to be in any way the distinction of the upper classes; for I never saw either the king, or any of his relations wear them, except his son-in-law, who had a boar's tusk or something similar to it in his beard. The ornaments are nearly the same as those which Forster found among the inhabitants of the Mendoza islands; boars' teeth and red beans being the chief articles here as well as there, and as he has given an exact description and drawing of most of them, I shall content myself with merely a short mention of them. The head-dress consists either of a large helmet of black cocks' feathers, or of a kind of diadem or band of woven cocoa fibres, ornamented with mother of pearl; or else of a ring made of a soft wood, from which a row of strings is suspended. Several wore broad leaves stuck in their hair: they adorn their ears with large white muscles of a circular form, filled with a hard substance like sand, to which a perforated boar's tooth is affixed for the purpose of fastening it to the ear; a small wooden peg that passes through the tooth, serving as a clasp to prevent its

falling out. But their chief attention is paid to the ornament for their necks; they have a kind of gorget, in the shape of a crescent, made of the same soft wood, to which several rows of red beans are affixed; and this ornament is the particular mark of a priest. Another sort of gorget is made entirely of boars' teeth fastened on to a band, woven with the fibres of the cocoa nut; and they also wear single boars' teeth, either suspended round their neck, or to their beards, and balls about the size of an apple, entirely studded over with red beans. They usually shave off their beards except a little tuft of hair upon the chin, and their head is also shorn except on two spots, from which tufts of hair grow like horns. But this is not the only manner of wearing the hair; many of them, particularly the lower classes, not having it cut at all; with them it was woolly and coarse, but not quite so much so as with the negroes of Africa.

The dress of the women consists of a girdle, drawn like that of the men between their thighs, and of a piece of stuff, which, as I have already mentioned, scarcely covers them, and hangs down to the calf of the leg; sometimes when they swam off to the ship, they threw away every thing, even to their tschiabu. They anoint their body every day with the oil of cocoa, which certainly gives it a great gloss, but is accompanied with a very disagreeable smell. Whether this is intended as an ornament, or to protect them from the rays of the sun, and from insects, against which the men preserve themselves by tatooing, and a yellow colour mixed with oil, rubbed over their bodies, I cannot positively determine; but I believe that both these purposes are effected by it. I have never seen any of them with

ornaments round their necks; but they all carry fans, shaped either like a lozenge, or a half circle, platted very neatly with grass, and coloured white with muscle-shells burnt to chalk; their hair is black and well anointed with oil, and tied up in a knot on the top of their heads.

The houses of Nukahiwa are generally long and narrow, built of bamboos and the stem of a tree, in their language called fau, interwoven with the leaves of the cocoa tree and fern: the wall at the back part of the house is higher than in front, and the roof, which is covered about half a foot thick with dried leaves of the breadfruit tree, is always sloped. The inside of the dwelling is divided into two parts, by a beam laid along the ground from one end to the other; the front is paved with stones, but the back part, on the contrary, is covered with mats, upon which the whole family sleep, without any distinction either of relationship or of sex: at one end is a small partition where they keep their most valuable effects; their calabashes, arms, clubs, drums, &c. are suspended from the roof, or hung along the wall: the door is in the centre of the house, about three feet high, and round this the whole family usually sit. At a distance of from twenty to twenty-five fathoms from the dwelling house, is another building of the same construction as that just described, and only differing from it by being about two feet higher; in front is a platform paved with stones, about ten or twelve feet wide, and running the whole length of the building. This serves them as a banqueting hall; but only the king, his relations, the priests, and some distinguished warriors can afford such a building, which supposes very considerable property; for the possessor of one has a number

of people constantly at his table, who form an association, and whom, however great the scarcity of provisions may be, he is always obliged to feed. The members of these clubs are distinguished by different tatooed marks upon their bodies; those of the king's club, consisting of twenty-six members, have a square one on their breasts about six inches long and four wide, and to this company Roberts belonged. The companions of the Frenchman, Joseph Cabritt, were marked with a tatooed eye, &c. Roberts assured me that he never would have entered this association, had he not been driven to it by extreme hunger: there was an apparent want of consistency in this dislike, as the members of these companies are not only relieved from all care as to their subsistence, but, even by his own account, the admittance into them is a distinction that many seek to obtain. I am therefore inclined to believe, that it must be attended with the loss of some part of their natural liberty; for it cannot be supposed that a people so little virtuous in themselves, would exercise such a degree of hospitality and love of their fellow creatures, without any prospect of return. The king gave us several examples of his want of liberality, or rather of his greediness; nor did he, in any instance, afford a single proof of his gratitude or benevolence.* A person of this character

* On every visit I made the king presents, certainly of no great value in themselves, but of some importance to a Nukahiwer; yet he did not even once bring a cocoa nut in return; and when, upon the misunderstanding which, as I have related in the seventh chapter, nearly led to a dispute, he came on board and brought me a pepper plant as a proof of reconciliation; he seemed even to regret this present, and in about half an hour afterwards asked me, in case I should make no use of it, to return it to him.

cannot be expected to feed constantly a number of men without some remuneration; and this, people possessing no property can only make by a sacrifice of part of their natural liberty and independence. This is the usual consequence of all political relations; the path to despotism is of a gradual ascent, and in a few years the king of Nukahiwa, who is now only the richest citizen of the republic, and does not possess the least power over the poorest inhabitant of the valley, excepting his associates, will in all probability become as absolute as the king of Owaihi. The female sex is never allowed any share in the meals given at these clubs, and the house is perfectly tahbu to them: yet this does not deprive them of the privilege of eating with the men when they are at home; neither are they forbidden to eat pork, although it is but seldom that they get any;* Roberts assuring me that he was the only one who did not deny his wife this delicacy.

From ten to fifteen paces from their houses are several holes, paved with stones and covered over with branches of trees and leaves. In these they keep their provisions, consisting chiefly of baked fish and of sour pudding, a kind of dough made of the taro root and breadfruit. Their cookery is very simple; for except hogs, and these, the Englishman told us, they dress in the Otaheite fashion, their chief dish is this sour pudding, which is not disagreeable and may be compared to an apple tart: besides these they eat yams, taro, bananas, and breadfruit. They bake their food upon banana

* In almost all the islands of these seas, both the one and the other are forbidden to the female sex.

leaves that serve them as well for dishes. Their manner of eating is highly disgusting; they snatch up the sour pudding with their fingers, and carry it with great greediness to their mouths; at least this was the way in which the king ate at his meals, and some idea may be formed of the rest by him; but I must add in his justification, that he washed his hands as soon as his meal was finished.

Their tools are extremely simple, and consist of a pointed stone to bore holes with, and an axe made of a flat black stone. This latter they never use but in the total absence of all European tools; for the smallest piece of iron that they received from us, they instantly fastened to a handle, after sharpening the edge of it. I have, however, seen a stone axe made use of in the construction of a canoe. Their household utensils consist of cocoa shells, hollowed pumpkins, or as they are generally called calabashes, large covered dishes of a thin brown wood in the shape of muscles, fishing rods and lines, and sharks' teeth which they use as razors. The calabashes and cocoa shells are mostly ornamented with the finger and arm bones of their enemies, whom they have devoured.

Their arms consist of clubs, spears, and slings. The clubs are about five feet long, of casuarina wood, beautifully polished, and very massy, not weighing less than ten pounds; and at their extremity is a carved human head. The spears are of the same wood, ten or twelve feet long, about an inch thick in the middle and sharp at each end. Their slings are simply a woven band, broad and flat in the middle to admit the stone.

The Nukahiwer has a manner of fishing quite peculiar I believe to himself.* They first bruise between stones a species of root that grows among the rocks; the fisherman then dives and strews the bottom with this mashed root, which stupifies the fish to such a degree that they immediately rise to the surface of the water, and are taken without any trouble: they likewise catch fish in nets, but I believe this the least usual way, as in all the bay of Tayo Hoae there were but eight canoes. The third mode of taking fish is with a hook, made very neatly of mother-of-pearl. The fishing line as well as all the string they use, either in the fitting out of their canoes or for other purposes, is made of the bark of the fau tree; but they make another kind of string very smooth and strong of the fibres of the cocoa-nut. Fishing is, however, an occupation despised by those who possess a piece of land of any extent: and only the poor class of people, who maintain themselves in this manner, give themselves up to it. Although they knew that we would pay them well for fish, they only brought us twice, seven or eight bonitos; a proof that there are but few who employ themselves in this way, and who have not land to cultivate.

The Nukahiwa canoes are invariably fitted with outriggers; they are built of three different kinds of wood, on which their goodness depends. Those of the breadfruit and mayo tree are of less value than the others, constructed of a tree called by the Natives, tamana; these are more durable, and swifter than the former. They are all very strongly built, and sewed together

* At Surinam I have since seen a method which has some resemblance to it.

with threads made of the fibres of the cocoa-nut; the largest we saw was twenty-three feet long, two and a half wide, and two and one third feet deep.

As the Nukahiwers know but few wants, cultivation has made very little progress among them; and less attention is paid to it in this island, than, according to account, in any other of this ocean. There are plantations of cloth-mulberry, taro root, and the pepper plant; but, comparatively speaking, very few, as not merely the want of taro, but the very simple and poor clothing of the inhabitants sufficiently proved. The breadfruit tree, the cocoa, and the banana plant, require no attention, and give very little trouble in transplanting, nothing more being necessary than to dig a hole and to set a branch in it; in a month's time the plant is in full growth, and all farther attention unnecessary. Agriculture employs the men very little; fishing they neglect, perhaps because it is attended with some trouble as well as danger. The only work of consequence is the construction of their houses and their arms, and even this can occupy them but seldom. Thus their whole lives must be spent in idleness, and, according to the Englishman's account, they really pass the greatest part of the day lolling on mats with their wives. The women have various employments; they make twine for several purposes, and fans for themselves and their husbands; but their chief employment is making cloth, of which there are two kinds; one coarse and of a greyish colour, made of the fibres of a tree, is used for tschiabus or girdles, and the poorer class dye it of a yellow colour, and wear it for clothing. The second sort, of which the women make their headdress and clokes, is very fine,

and of a brilliant white, and is made of the cloth-mulberry shrub. The fine stuffs are considerably smaller than the coarse, and not so strong and close; at any rate I never saw a single piece that was not weak and full of holes.

I have already had occasion to mention that the form of government is any thing rather than monarchical; the king is not to be distinguished either by his dress or by his ornaments from the lowest of his subjects: they laugh at his orders, and should he venture to strike any one, he would infallibly meet with a like return. Perhaps in time of war he may be considered as chief of the warriors, and may then possess some authority, but from their manner of fighting, it can scarcely be supposed that he alone is their leader. The strongest and most intrepid probably directs, by his conduct, the actions of the rest, and I conceive on that account the authority of the king, even in such times, to be doubtful. I am convinced too that Kettenowee plays a much less brilliant part in the field of battle, than his fire-maker Mau-ha-u. The chief advantage possessed by the king, and the only one that can be spoken of with any degree of certainty, consists in his greater wealth, by which he is enabled to provide for a larger number of persons.

As the king does not possess the least power, no kind of justice can be executed here; stealing not only is not held a crime, but on the contrary is considered as a particular merit in those who evince adroitness:* adultery is only a crime in the royal

* I must, however, do the Nukahiwers the justice to say, that on board the ship they

family; murder alone is not allowed to pass unnoticed; not by the king and the priests, but by the relations and friends of the slain, who seek revenge and will have blood for blood.

From the information which I collected of their family connections, they do not appear to be of the happiest nature. Although the Nukahiwer has so far removed himself from the brute creation, that the generality of the women are bound by connubial vows, still this oath is very little observed by any of them. It is probably an agreement to live together, arising either from a mutual inclination or interest; and is afterwards continued from habit, or from the original motive still remaining in force; and notwithstanding the shortness of our stay here, we found sufficient to convince us, that the virtuous ideas of the duties and relations of a married state, avowed by some of the people of this ocean, even to an extraordinary degree, are entirely unknown in Nukahiwa:—in a word adultery is a crime tolerated by them all.* The shocking consequences of this brutal mode of life are in no cases so apparent, as in the indifference with which, during a famine, a Nukahiwer will murder his wife, to satiate his hunger with her flesh; and he butchers his child and devours it with the same voracity. But perhaps the Nukahiwer would never have been capable of so monstrous an act, if he had not well grounded reasons to doubt

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seldom gave us an opportunity of admiring their skill in stealing; probably the constant watch kept with a loaded musket, and of which they had a perfect idea, deterred them from it.

* The Frenchman, who during a residence of ten years was become a perfect Nukahiwer, considered it as a great proof of the refinement of his new countrymen, that the brother and sister did not sleep together.

whether the child really were his own; and I imagine that Roberts was urged by vanity, in attempting to rescue the honor of the royal family, to which he belonged, when he declared that the king and all his relations had a right to kill their wives, if ever they found them in the arms of another. If such a case had really occurred, other causes have in all probability given rise to so violent an example; since from his own account, the ladies of the royal family set but very little value upon connubial fidelity; nor could we observe more moderation in them, than in any others of the sex.

A very important member of the royal family is the *firemaker*: his duty consists partly in being always near the king's person to execute his orders; but the business wherein his master generally employs him, is of a nature perfectly characteristic of the monarch of Nukahiwa. On quitting his house for any time, his firemaker does not accompany him, but must, in every sense, represent his person with the queen, who finds in him a second husband during the absence of the first. He is the guardian of her virtue, and his reward the enjoyment of that which he has to protect. The kings of Nukahiwa probably have a notion that it is better to share with one, what would otherwise be divided among several; but perhaps the duty of firemaker is only a royal luxury with him. The herculean Mau-ha-u filled this post near the queen of Tayo Hoae; but he certainly did not merit the confidence of his sovereign, for he appeared to be a very bad guardian of the morals of his wife.

It may easily be imagined that a people who find pleasure in eating human flesh, will frequently wage war with their

neighbours to procure some of this delicacy, although there should be no other sufficient reason for it; and in their art of war, there is a perfect similarity between the character of these savages, and of wild beasts. They seldom meet in large parties in the field; but their usual mode of warfare is, to be constantly watching for, and secretly seeking to butcher their prey, which they devour on the spot. He who evinces the greatest skill in these arts, who can lie the longest on his belly perfectly motionless, who can breathe the lowest, run the swiftest, and spring with the greatest agility from one precipice to another, acquires no less reputation among his comrades, than the brave and powerful Mau-ha-u. In all these attainments the Frenchman particularly excelled, and he has since frequently amused us with a relation of his exploits, and of the numbers whom he has slain, in this mode of warfare; entering into a particular detail of all the circumstances. But he assured us, and even Roberts his enemy did him the justice to acknowledge, that he had never eaten human flesh, always exchanging his victims for hogs.

It is with the natives of the neighbouring valleys, such as Home, Schegua, Hottyschewa, that those of Tayo Hoae wage a continued warfare, as well as with the inhabitants of another valley far inland. The warriors of Home, whose number is about 1000, have a name peculiar to themselves, Tai-pihs; which signifies warriors of the great ocean; with these tai-pihs the people of Tayo Hoae do not carry on war by sea, but merely by land. The reason is singular and deserves notice, since it proves, that although the king is held in but little consideration, very much respect is paid upon some occasions, to the persons of the royal family; a circumstance per-

haps arising from some ancient superstition. The son of Kettenowee is married to the daughter of the king of the Tai-pihs; and as she joined her husband by water, the sea which divides these two vallies is *tahbu*, that is to say, must not be contaminated by any blood. If the young prince should quarrel with his wife, and she should return in consequence to her parents, the war which can now only be waged by land, would again commence by sea. But if she should die in this valley, an everlasting peace would ensue, because the spirit of this royal personage, who is considered as etua, a deity, would hover over these regions, and its rest must not be disturbed. A similar fortunate union has set the inhabitants of Tayo Hoae at peace with those of another valley in the interior, the king of which is called Mau-day, (signifying head of the warriors,) and who is said in times of war to be able to raise 1200 fighting men. He married the daughter of Kettenowee, and as no naval war can be carried on between them, they live in a state of perfect peace. Mau-day was almost always in Tayo Hoae, and after Mau-ha-u and Bauting was the handsomest man we saw; he was likewise one of our daily guests.

The wars with the Tai-pihs are continued by land, until one of the two kings (and they have both a right to it) shall demand a truce for the purpose of celebrating their dance-feast, the Olympic games of these savages, and which according to their customs must not be deferred too long. In order to celebrate this they agree upon a term, and all parties, friends as well as enemies, assist in the preparations; and as a proof that these coarse bloodthirsty men have no pleasure in a continued state of warfare, but are glad to live occasionally in peace and

security, they frequently prolong the time necessary to prepare for these feasts, which last only a few days. Six months had elapsed since the last truce was proclaimed, and eight months longer were to pass before the feast began; although no other preparations were required than to make a new place upon which the dance is to be celebrated. After the termination of the feast, they return home, and the war recommences in all its vigour. From the moment a truce is announced, which is done by planting a branch of a cocoa tree on the top of the mountain, the war instantly terminates. But there is one exception when, not only in the time of their truce, but during that of their feast, in a word whatever may be the footing on which they are placed, neither the genius of peace, nor the spirit of an etua is sufficient to deter them from proceeding to hostilities. Whenever one of the high priests of the valley dies, three human bodies must be sacrificed to him. These are never chosen from among the people to which the priest belonged, but must be taken from some of the neighbours, and several canoes are immediately dispatched to procure them. If these should fall in with a canoe too weak to defend itself, having the proper number of victims on board, all hostilities again cease, and the sea is tahbu as before; but if they do not succeed by sea, they land, lurk among the rocks, where the islanders often come in the morning to catch fish, and it is not long before they are enabled to offer up a sacrifice, to conciliate the deity with the spirit of the high priest. These are not devoured, but hung up on a tree until the flesh falls off the bones. If this sacrifice is not obtained the first day, the report of it spreads abroad, the rights of retaliation are asserted, and the war becomes general; but these hostilities are seldom of long duration, as the number of vic-

tims necessary to be sacrificed is but small. During our stay in Tayo Hoae, a similar scene was hourly expected, the high priest lying at the time dangerously ill, and very little hopes being entertained of his recovery.

As there are priests among them it is natural to suppose a religion; but in what can the religion of a Nukahiwer consist? This much may indeed be inferred from their moral character, that it has never tended to ameliorate them. In all probability in serves only as a pretext for insuring a life of safety* to some of them, who by their absurdities, often bordering upon the most horrid crimes, find means to make the rest consider them as a necessary and holy class of men. A confused notion of a higher being, whom they call Etua, does indeed exist among them, but of these there are several kinds; the spirit of a priest, of a king, or of any of his relations, being an etua. They likewise consider *all* Europeans as such; for as their ideas do not extend beyond their own horizon, they are firmly convinced that their ships come from the clouds; and they imagine that thunder is occasioned by the cannonading of vessels which float in the atmosphere, on which account they entertain a great dread of artillery.†

The only good which they have derived from their religion

* The person of a priest is tahbu.

† The king's brother happened to be on board when a cannon was fired; he immediately cast himself on the deck, clung round the Englishman Roberts who stood near him; the greatest dread was painted in his countenance, and he repeated several times with a feeble voice, Matte, Matte.

is the tahbu, originating undoubtedly in some superstitious notion; for since nobody, not even the king, dares venture to break the slightest tahbu, it is a proof that some strange feeling inspires them with a reverence for this word. The priests only can impose a general tahbu, but every individual has a right to pronounce one upon his own property: this is done by declaring, if his wish be to preserve a breadfruit, or a cocoa tree, a house or a plantation, from robbery and destruction, that the spirit of his father or of some king, or indeed of any other person, reposes in this tree, or house, which then bears the name of the person, and nobody ventures to attack it. If any one is so irreligious as to break through a tahbu, and should be convicted of it, he is called kikino; and the kikinos are always the first to be devoured by the enemy, at least they believe it to be so, nor is it impossible that the priests should so arrange matters as that this really happens. The persons of the royal family and of the priests are tahbu, and the Englishman assured me that he was so likewise; and yet he often expressed his fear of being taken in the next war and devoured. In all probability he was at first considered like every other European, as etua, and only seven years acquaintance with him had worn away the lustre of his divinity.

Roberts was able to give me but very little insight into the religious opinions of his new countrymen, probably because their ideas are but confused upon this head; although perhaps he had not troubled himself to obtain any knowledge of them. The following he described as the usual funeral ceremonies, in which the spirit of their origin cannot be mistaken. After the corpse is washed, it is laid upon a platform, both being

covered over with a piece of entire new stuff, and the next day the family of the deceased gives a grand feast, inviting their best friends and relations. To these, at which the priests must always be present, the women are on no account allowed admittance; they produce their whole stock of hogs, (seldom eaten but upon these occasions,) of taro root, and of breadfruit, and as soon as the guests are assembled, they cut off the hog's head to propitiate the gods, and obtain for the deceased a safe and peaceable passage through the lower regions. This gift, which the priest takes possession of, is secretly devoured by him, and he only leaves a small piece of it under a stone. The friends or nearest relations of the deceased, must then watch for some months over the corpse, and rub it constantly with cocoa oil, to prevent putrefaction. By this continued application it becomes hard as a stone, and quite incorruptible. Twelve months after the first feast, a second equally extravagant meal is given to thank the gods for having permitted the deceased to arrive safe in the other world. After this the corpse is broken into pieces, and the bones are packed in a small box made of the wood of the breadfruit tree, and carried to the morai or burial place, where no woman is allowed to approach under pain of death.

An universal belief in charms, which all these islanders consider as very important, I conceive to have some connexion with their religion; the priests alone according to their account having the power of giving effect to them. There are some, indeed, among the people who pretend to possess the secret, probably with a view to make themselves feared, and obtain presents. These charms, which they call kaha, tend to kill by

slow and imperceptible means, any person against whom they are incensed; twenty days is the time allotted to this purpose, and they proceed to work in the following manner: he who wishes to revenge himself by witchcraft, endeavours to procure either the saliva, urine, or excrements of his enemy, and after mixing them with a powder, and putting them into a bag woven in a particular manner, he buries them. The important part of the secret consists in the manner of weaving the bag, and preparing the powder. As soon as the charm is buried, the effects of it begin to appear upon the person against whom it is directed; he becomes sick, and every day weaker, till at last he loses his strength entirely, and dies upon the twentieth day. But should he endeavour to avert the revenge of his enemy, and purchase his life with a hog or any other valuable present, he may be even saved on the nineteenth day; for provided the bag be dug up, the effects of his disease are immediately stopped, he recovers by degrees, and in a few days is perfectly restored. In these charms of the priests, Roberts, who appeared in other respects a sensible man, placed implicit confidence; the same was the case with the Frenchman, who had taken infinite pains to ascertain the secret, in order to get rid of the former, which he had no hopes of doing by any other means; for Roberts possessed a gun, a talisman of infinitely more avail than the kaha. To ensure himself still more against his enemy, Roberts requested both myself and Captain Lisianskoy, in the most pressing terms, to let him have a brace of pistols, a gun, some balls, powder and shot, and we were sorry to be under the necessity of refusing the request of a man, who had been so very useful to us; but we assured him that a constant state of warfare, in which he would live until his stock of powder and ball

were expended, would be the inevitable consequence of our compliance; for the possession of powder and shot could not be a secret upon the island, and the natives would infallibly strive to get them from him, and in all probability he would run a much greater risk of losing his life by having them, than acquire safety by their possession. Our reasons appeared to convince him, and as we parted good friends, we provided him with several articles, likely to be of much more advantage to him than the powder and ball.

Roberts, although he appeared to me to be an enthusiast, and of no settled character, was a man of strong understanding, and I really believe a good man. The worst that his bitter enemy the Frenchman could say against him, was, that he evinced no skill in stealing, and therefore was in constant danger of dying of hunger. He had, however, by degrees acquired that esteem from the savages, which reason must obtain from stupidity, and he had more influence over them, than any of their most distinguished warriors. To the king he had become particularly necessary, and I have no doubt that he would effect more good than the missionary Crook, who remained for some time upon this island, was able to perform; for the latter had no other idea than that of converting the Nukahiwers to Christianity, without recollecting that it was first necessary to make them men: for this purpose Roberts appears to me more proper, as well on account of the example he afforded, and of his activity, as the esteem which they universally bore him, than either Crook or any other missionary whatever. He has built a very neat house and possesses a piece of land, which he cultivates with care and diligence; and he never fails, where it can

be done, of introducing improvements before unknown to them. From his own account he leads a happy independent life, and is only troubled by the thoughts of being surrounded by cannibals, for which reason he is particularly fearful of the next war. I offered to convey him to the Sandwich islands, from whence he would easily find an opportunity of getting to China; but he could not prevail on himself to quit his wife, who during our stay there bore him a son, and it is probable he will end his days in Nukahiwa.

From a people sunk into the depraved state in which the Nukahiwers are, any great feeling for music can scarcely be expected. But as there is no nation, however unpolished, among whom some delight in harmony has not been observed, that of Nukahiwa is not totally indifferent to it. Their music answers to their character; and the real object of this art, which is to raise soft sensations, cannot be obtained among a people devoid of feeling, nor can those men have any taste for the soft and delicate tones of a flute, who murder their wives and children with the greatest indifference. Such instruments alone can procure their approbation, and continue in use, as rouse their passions, whenever nature attempts to assume a sway; and for this purpose their drums, which are of an enormous size and produce a dull hollow noise, seem particularly calculated. Another sound which they produce by pressing one arm close to their bodies, and striking forcibly with the other on the hollow part, so as to make a sharp and sudden noise, appears to afford particular pleasure to the ear of the Nukahiwer. Their singing and dancing are no less wild: their dancing consists in hopping for a considerable time on the same spot, frequently

raising their hands in the air, and moving their fingers with great velocity, while they beat time with their hands, in the manner above described. Their singing is more like howling, than any regular concordant sound; yet they were satisfied with it, and I much doubt whether any Nukahiwer would be affected by the most beautiful music.

The information I have to give with regard to the population of the island, is drawn certainly from a very arbitrary estimation. But where no positive account can be adduced, any thing even approaching the truth becomes of value. Tayo Hoae, according to Roberts, can send 800 warriors against its enemies; Home 1000; Schegua 500; Mauday has 1200 under his command; Hotty-Schewa to the south-west of Tayo Hoae, and another valley to the north-east, have each 1200. These numbers Roberts mentioned at random, having no positive information on the subject, but believing, he said, that they were rather below than above the mark. The warriors therefore amount to 5,900; and if I take three times that number for the women, children and old people, which I think is not too little, considering that the marriages are very unproductive, and I neither saw in Tayo Hoae, nor in Schegua any very old people, I make the whole amount of the population to be 17,700, or in round numbers 18,000. Roberts's calculation, however, of the people of Tayo Hoae, appeared to me by one-third too great; for in this place, where he said there were 800 warriors, and consequently 2,400 people, I never saw altogether more than from 800 to 1000, of whom 3 or 400 were girls. The greatest part of the inhabitants were undoubtedly assembled on the beach, at the time of our landing; for as European

ships rarely touch here, and the eagerness after iron is so very great, it is natural to suppose, that excepting the mothers with their children, of which we only saw the king's granddaughter, very few would abstain from coming there. Taking Roberts's calculation as one-third too great, and reducing the whole population in that proportion, there only remains 12,000; a number undoubtedly very small for an island upwards of sixty miles in circumference, particularly as the climate is healthy, the use of kava very moderate, and the venereal poison has not yet been introduced. On the other hand the constant wars, human sacrifices and murders, which are committed as soon as any want of provisions ensues; the shocking depravity of the women, who give themselves up from the age of eight or nine, and the little regard that is paid to connubial vows, must all tend to diminish the population. Roberts assured me that a woman seldom had more than two children, and very often none at all; on an average therefore, only one child can be calculated for every married couple, which is scarcely a fourth part of what is supposed in Europe.

I shall conclude this account of the manners and customs of these islanders, with some general remarks upon their character; and I must confess that had I not met with the Englishman and Frenchman here, I should have quitted Nukahiwa with a most favorable opinion of them. In their intercourse with us they always shewed the best possible disposition, and in bartering an extraordinary degree of honesty: always delivering their cocoa-nuts before they received the piece of iron that was to be paid for them. At all times they appeared ready to assist in cutting wood and filling water; and the help they afforded us

in the performance of these laborious tasks was by no means trifling. Theft, the crime so common to all the islanders of this ocean, we very seldom met with among them; they always appeared cheerful and happy, and the greatest good humour was depicted in their countenances. In a word, during the ten days we spent with them, we were not once obliged to fire a loaded musket at them. Their peaceable behaviour might indeed be attributed to their fear of our firearms; but what right have we to ascribe to any bad motive that conduct which demanded our approbation, or to expect such motives among a nation hitherto but little acquainted with Europeans, and, therefore, according to the doctrines of some philosophers, still perfectly untainted?

That in spite of the prejudices I had formed in Europe in favor of these islanders, I should not have preserved that good opinion of the Nukahiwers, which, from appearances, I had been led to entertain, during the first days of my stay among them; but on the contrary, should have represented them in the most unfavorable light, will certainly appear just, on a due and impartial judgment of the following account.

The two Europeans whom we found here, and who had both resided with them for several years, agreed in their assertions, that the natives of Nukahiwa were a cruel intractable people, and, without even the exception of the female sex, very much addicted to cannibalism; that the appearance of content and good humour, with which they had so much deceived us, was not their true character; and that nothing but the fear of punishment, and the hopes of reward, deterred them from giving a

loose to their savage passions. These Europeans described, as eye-witnesses, the barbarous scenes that are acted, particularly in times of war; the desperate rage with which they fall upon their victims; immediately tear off their head, and sip their blood out of the skull,* with the most disgusting greediness, completing in this manner their horrible repast.

For a long time I would not give credit to these accounts, considering them as exaggerated; but they rest upon the authority of two different persons, who had not only been witnesses for several years to these atrocities, but had also borne a share in them; of two persons who lived in a state of mortal enmity, and took particular pains by their mutual recriminations to obtain with us credit for themselves, but yet on this point never contradicted each other. The very fact of Roberts doing his enemy the justice to allow, that he never devoured his prey, but always exchanged it for hogs, gives the circumstance a great degree of probability; and these reports concur with several appearances we remarked during our stay here; skulls being brought us every day for sale. Their weapons are invariably adorned with human hair, and human bones are used as ornaments in almost all their household furniture:—circumstances which leave, unfortunately, no doubt of the inhabitants of Nukahiwa being cannibals. They devour their enemies taken in battle, in common with the New Zealander, the people of the Sandwich islands, in short, with all the islanders of the south sea; but the following trait, which is horribly disgusting,

* All the skulls which we purchased of them, had a hole perforated through one end of them for this purpose.

and yet, from the relation of the two Europeans, is placed beyond a doubt, distinguishes the natives of these islands from all other cannibals, and is perhaps a singular example among the numerous tribes of savages who inhabit the many islands on the north-west coast of this great ocean.

In times of famine the men butcher their wives and children, and their aged parents; they bake and stew their flesh, and devour it with the greatest satisfaction. Even the tender looking female, whose eyes beam nothing but beauty, will join, if permitted, in this horrid repast. Can such people then be defended? Can any one join with George Forster in asserting that the islanders of the south sea are a good natured, mild, and uncontaminated people? Fear alone prevents their murdering and devouring every stranger who arrives. As a proof of this, I need only relate, that some years ago an American merchant-ship put into Port Anna Maria, and the captain, who was a Quaker, suffered his people to go on shore unarmed; but the natives no sooner perceived their defenceless condition, than they assembled in order to attack and drag them into the mountains. Roberts succeeded, with the greatest difficulty, and with the assistance of the king, to whom he represented the treachery of their conduct, and the consequences it would infallibly bring upon the whole island, in rescuing them out of the hands of these cannibals. Nor did we ourselves want a proof of their being denied every feeling of justice and goodness; for although, during our stay, no one had ever shewn them the least illwill, but, on the contrary, every possible kindness, in order to inspire them with benevolence, if not with gratitude, our conduct seemed to have quite a different effect upon them.

A report had spread that one of our ships had struck, occasioned by our being obliged, while in the act of sailing out, to bring up close to the shore as I have related in the seventh chapter. In less than two hours a number of the islanders had assembled on the beach close to the ship, all armed with clubs, axes, and spears. What then could be their intention but to plunder and murder us? The Frenchman too, who came on board at that moment, acquainted us with the hostile intentions of the inhabitants, and of the whole valley's being in an uproar.

From this description of the Nukahiwer, which perhaps may appear exaggerated, but really is not so, it is pretty evident that they have neither social institutions, religion, nor humane feelings in any degree whatever,—in a word, that no traces of good qualities are to be found among them; that they undoubtedly belong to the very worst of mankind, and at any rate that no one can quarrel with me for calling them savages.* Notwithstanding the favourable account in Captain Cook's voyages of the Friendly, the Society, and the Sandwich islands, and the enthusiasm with which Forster undertakes their defence against all those who should make use of any harsh expression with regard to them; I cannot refrain from declaring the inhabitants of all the islands of this ocean to be savages, not only accord-

* Fleurieu gives the following definition of a savage: Voyage de Marchand, tom. v, page 441, edit. en 8vo. 'J'appelle sauvages les peuples qui ne reconnoissent aucun gouvernement, aucune institution sociale, et satisfaits de pourvoir aux premiers besoins de la nature, peuvent être considérés comme le terme intermediaire entre la brute et l'homme; on doit cependant classer au-dessous de la brute l'homme qui mange son semblable.'

ing to Fleurieu's definition, but as ranking generally, perhaps with a very trifling exception, with those men who are still one degree below the brute creation. In a word, they are all cannibals: we need only recollect the islanders who have already been proved to belong to this class:—for instance the New Zealander, the cruel inhabitant of the Fidji, the Navigateur, the Mendoza, Washington, the Solomon, and Sandwich islands, the islands of Louisiade and New Caledonia. The good name which the inhabitants of the Friendly islands had acquired has suffered very much by the affair of Captain Bligh and the visit of Dentrecasteaux, and it may now be maintained, with some degree of certainty, that they have in this respect the same taste as their neighbours in the Fidji islands and the Isles des Navigateurs.

Hitherto the natives of the Society islands alone, among all those who are pretty well known, have not fallen into suspicion. They are in every respect the mildest, the most uncontaminated and humane of all the inhabitants of this vast ocean. They, in fact, excited the great enthusiasm in favour of these children of nature; but even there the mother murders her newly-born infant with a horrid indifference, that she may abandon herself the more easily to a disorderly life; and the numerous companies of Arreoyes, defended by Forster with so much eloquence, do they not consist of men guilty of the greatest debauchery, and who may all be called parricides? The passage to cannibalism is very easy: and perhaps nothing but the extraordinary fruitfulness of their islands has hitherto preserved them from sinking below the brute.*

* The elder Forster thinks that even the inhabitants of the Society islands were once cannibals.

However much it is to the honour of Cook and his companions that they endeavour to shield the islanders whom they visited, and who did not fall into suspicion, against the charge of being cannibals, later voyages have proved how easily appearances may lead to an erroneous opinion. I will merely adduce the following example, and undoubtedly every future voyage and farther acquaintance with these children of nature will afford many similar ones. Cook met with the kindest reception from the natives of new Caledonia, and he not only exempts them from the suspicion of being cannibals, but has spoken in the highest terms of them. He praises them indeed so highly as to prefer them to all the other inhabitants of this ocean, and represents them as much milder than the people of the Friendly islands. Forster gives an equally favourable account of them; while on the other hand Dentrecasteaux found among them the most indisputable proofs of cannibalism; and woe to the navigator whose ship is lost upon this dangerous coast! Perhaps it was among these barbarians that the unfortunate La Perouse found his grave, after first deploring the loss of his companions suffering by a similar fate.

CHAPTER X.

DEPARTURE FROM THE WASHINGTON ISLANDS.—ARRIVAL OF THE NADESHDA IN KAMTSCHATKA.

The Nadeshda and Neva sail from the Sandwich Islands—Fruitless Search for the Island Owiha Potto—Arrival off the Coast of Owaihi—Remarkable Error in the Chronometers of both Ships—Total want of Provisions—Mowna Roa—Description of the Inhabitants of the Sandwich Islands—The Nadeshda separates from the Neva and sails for Kamtschatka—Experiments on the Temperature of the Sea—Fruitless Endeavours to find the Land discovered by the Spaniards to the East of Japan—Arrival off the Coast of Kamtschatka—Situation of Shipunskoy Noss—The Nadeshda enters the Harbour of St. Peter and St. Paul.

On the 18th May we set sail, in very bad weather, from the bay of Tayo Hoae. Upon this occasion we lost a kedge anchor and cable; for, while we were warping out of the bay, a violent gust of wind arose and obliged us to cut our cable and make sail in order not to be driven on the rocks at the west point of the entrance, from which we were scarcely a cable's length. About nine the clouds broke and the weather cleared up; but the wind still blew strong at E. S. E., and we now caught sight of the Neva, who had succeeded in getting to sea the preceding evening. After hoisting in the boats, and stowing away the anchors, I again pointed the ship's head to the northward, as we had still some angles to measure, and the bad weather during the morning had prevented us from finishing our draught of the headlands. At noon we had an observation in 8° 59′ 46″; the north-west point of Nukahiwa bearing at.

the time nearly N. This, the longitude of which we found to be 139° 49′ 00″ W. I made my point of departure.

I now steered W. S. W. with a strong easterly wind, to ascertain the existence of the land seen by Marchand to the northward on his passage from these islands, and which Fleurieu believes to have been the Ohiwa Potto of the Otaheitean Tupaya, who accompanied Cook upon his first voyage. The night was clear; but I determined to lie-to in order to leave no doubt with respect to this supposed island, and did so about nine o'clock, after having run about one degree to the westward of our point of departure. About half past five in the morning we steered, under all sail, W. by S. and at noon W., till I conceived it useless to hold a W. S. W. course any longer; for if Marchand had really seen any land in this direction, we must have discovered it before sunset. After running to the westward until near six o'clock in the evening, without observing any symptoms of land, I gave up all farther search in that direction; nor would it have been prudent to have continued it any longer, as the strong westerly current in this part of the ocean, renders the passage from the Washington to the Sandwich islands very difficult, as was experienced by Lieutenant Hergest on board the Dædalus: and it was this current which obliged Vancouver, in his passage from Otaheite to Owaihi, to stand so much to the eastward, in order to fetch the latter island. About six I altered my course N. N. W.: we were at that time in latitude 9′ 23″ S., and longitude 142° 27′, consequently 2° 48′ to the westward of Nukahiwa. During the first night we held this course, I kept under very easy sail; because in this vicinity we might have fallen in with land, a piece of good fortune we

did not however experience. During the first days we had a strong wind at E. and E. S. E. with violent squalls, that split some of our sails; the current, as I expected, setting constantly to the westward. Vancouver observed that it sometimes set to the northward; and I was not a little surprised to find it flow two days following to the south, and on the 21st and 22d of this month, between the fourth and sixth degree of latitude, forty-nine miles in the direction of S. W. 65°. This induced me to steer another point to the N., and even N. by W.: the southerly current in the mean time disappeared, and until our arrival at the Sandwich islands it was constantly N. W.

On the 22d May we were in latitude 3° 27′ S. and longitude 145° 00′ W. The southern dip of the needle was on this day 13°, and the variation 5° 18′ E.* On the 24th during a calm, Dr. Horner lowered Six's thermometer a hundred fathoms. At this depth the temperature was 12½°, and on the surface 22½° which was also that of the air. Hales's machine, on the contrary, stood at the same depth at 19°, although it was twenty minutes under water; a proof that the water in it had become considerably warmer during the operation of hoisting it on board.

At the time when these experiments were made we were 56′ S. of the equator, and in longitude 146° 16′; the variation of the needle was 4° 34′ E. and its southern dip 8° 30′. Although,

* This evening we caught a grey bird, about the size of a pigeon: for some time it continued fluttering around the ship, and at length settled on the rigging, and was taken by one of the men.

during the last two days, the wind had been very moderate and even calm, we found the air much pleasanter; and, compared with the hot weather we had experienced for several weeks, and particularly during the night, it might really be considered cool: the thermometer, however, stood only 1½° lower than during the first days of our departure from Nukahiwa.

On Friday the 25th May, about three o'clock in the afternoon, we crossed the equator in longitude 146° 31′, according to the watches, but by the ship's reckoning in 144° 56′. In seven days therefore our longitude by the log had varied from the real longitude about 1° 35′. Nearly at the moment of the ship's crossing the equator, which we were able to determine with sufficient correctness, our latitude, by observation at noon, being only 4′ S., the southern dip was found to be 6° 15′; but as our dipping needle was not remarkably good, no great dependence can be placed on this calculation. On the next day in latitude 1° 12′ N.* and longitude 146° 46′, it was 5° 30′, and the variation of the needle, some hours later, 5° 18′ E.

Hitherto we had scarcely seen any birds, but on the 27th May, in latitude 2° 10′, and longitude 146° 50′, we saw a flight of tropic birds, and others of a smaller kind: among them there was a larger bird, whose plumage was entirely black, which, according to the report of our wild Frenchman, are in great plenty in the neighbourhood of Nukahiwa and the rest of that group of islands, and are there said never to fly far from land.

* From this time our latitude will always be N. until our departure for Europe from China.

This proof of the vicinity of land, and a large green bough seen by some of our people, raised a hope that we might, even during the night, fall in with some unknown islands; but though the moon shone very bright our wishes were not gratified.

On the 30th May, Johann Neuland, our cook, whose illness I have already mentioned, died. I hoped to have been able to keep him alive until we reached Kamtschatka; but the extreme heat of the weather, while we lay at Nukahiwa, hastened his death. He was a native of Courland, about thirty-five years old, and a man of very good character.

We had frequent calms until we reached the eighth degree of latitude, with very variable winds, and on one day it blew for sixteen hours from the W. The weather was hazy with heavy rain, which at least afforded us the advantage of being able to fill all our empty casks. In the eighth degree the wind veered to N. E. and E. N. E., the true trade wind, and held in that direction until we came off the Sandwich islands. Hitherto our lunar observations had given the same longitude, within a few minutes, as our time-pieces; but on the 3d June we found a difference in our observations of 10′, and the next day of 25′, by which the watches were too much E. Although the observations taken by Dr. Horner, Captain Lisianskoy and myself agreed pretty nearly with one another, we were nevertheless inclined to attribute this sudden and unaccountable change rather to our distances, than to the time-pieces, but in this we were wrong; for upon our arrival at Owaihi, No. 128 was 33′ 30″, and No. 1856 11′ 00″ too much to the eastward.

The wind continued fresh from N. E. and N. E. by E. and a heavy swell from the N. E. occasioned a very unpleasant motion to the ship, which now, for the first time, appeared to have sprung a leak; so large a one, indeed, that we were frequently obliged to work at the pump two and three times a day. It was not, however, dangerous, and was owing to the ship being considerably lighter than when we left Europe, and consequently much higher out of the water. The oakum with which the seams were caulked on the waterstreak was become quite rotten; and the water forced a passage in on the least motion of the ship. This evil could not be remedied until our arrival at Kamtschatka, and I only lamented that the extreme heat should render the operation of pumping so very fatiguing to our people.

At six o'clock on Thursday morning, the 7th June, I conceived myself to be only a very short distance from the east end of Owaihi, and therefore altered my course from N. N. W. to N. W. by W. At half past eight we saw land, and immediately perceived it to be Owaihi, distant about thirty-six miles, bearing N. W.; yet we could not distinguish Mowna Roa. At noon we were in lat. 19° 10′. The east point of Owaihi, in lat. 19° 34′, bore nearly due N. As this point has been very correctly laid down according to the observations of Captain Cook, and is admitted as the true longitude by his disciple and follower Vancouver, we had a very favourable opportunity of ascertaining the error of our watches.

The longitude of the east point was

By No. 128	154° 22′ 30″ W.
1856	154° 45′ 00″ W.

Pennington's	154° 29′ 30″ W.
Captain Cook	154° 56′ 00″ W.

The observations taken by Captains Cook and Vancouver leave no doubt with regard to the true longitude, and our lunar observations on the 4th and on the 11th June, the day after we quitted Owaihi, perfectly confirmed them. The first made the error of No. 128 to be 39′, and the latter 35′ too much to the east. We could now only correct the longitude of our watches by this new discovered difference; and assume a new rate for them in the best manner we are able at sea. It is very remarkable that the error in all the six watches on board both the ships, and four of which were by Arnold, should in this short run have happened on the same side. The cooler temperature of the air could hardly have produced this alteration in their rate, as the difference since we sailed was not two degrees and a half. The longitude by the ship's reckoning was 150° 54′, and in the space of twenty-one days the current had carried us 4° 2′ to the westward, on an average, about eleven miles a day.

The almost total want of animal stock on the island of Nukahiwa, where we had been able to procure only seven hogs of about 70 or 80 lbs. weight, for both ships, made it my duty to proceed to the Sandwich islands, where I reckoned with some degree of certainty, upon procuring a plentiful supply of provisions. My people were all healthy: but in a long voyage like this, during which, except the first weeks after our departure from Brazil, they had had no other provisions than salt meat, I naturally expected from day to day to see some symp-

toms of scurvy break out among them, in spite of all my precautions. As we should be obliged to remain at least a month in Kamtschatka, it was necessary to hasten our voyage thither, in order to arrive at Nangasaky before the end of the month of September, as a change in the monsoon very frequently takes place off the coast of Japan about the middle of that month. But I had the health of my people to preserve, which with me was above all other consideration; and I now abandoned my proposed plan of holding a new course from the Washington islands to Kamtschatka, in the hopes of making some new discovery; and determined, in order to lose as little time as possible, not to come to an anchor anywhere, but merely to bring-to for a couple of days off the coast of Owaihi, from whence, according to the account of all navigators who have touched at this island, the natives will come out fifteen or eighteen miles to sea, to barter their provisions against European goods. For this reason we first stood in for the S. E. coast of Owaihi, hoping, by sailing quite round the island, to obtain a greater supply. It will soon appear how cruelly we were deceived in our calculations.

After standing-in to about six miles from the shore, I put the ship about, and steered along the coast under nothing but our topsails, heaving-to as soon as we saw any canoes put off to us. Their cargoes, however, did not in the least answer my expectations. Some potatoes, half a dozen cocoa nuts, and a small sucking pig, were all that I was able to procure out of six canoes; and these we did not obtain without difficulty, and at a very high price, as the venders would take nothing but cloth in payment, and I had not a yard on board to dispose of.

Stuffs, of the manufacture of the island, they had in abundance for sale; but as my wish was to procure provisions, I forbad any one from buying them. An old man brought us quite a young girl, probably his daughter, whom I conceived, perhaps incorrectly, from her awkward behaviour, and, at least, apparent modesty, to be still innocent; but he had the mortification which he so richly deserved, of offering his goods in vain.

The weather was unsteady, and accompanied by rain and some gusts of wind, and no more canoes putting off from the shore, I stood away from the island, steering S. S. E. with a fresh easterly wind. The scarcity of provisions experienced here surprised me, as the part of Owaihi where we touched seemed to be uncommonly well cultivated. The island had a beautiful appearance; in this respect none of the Washington islands is at all to be compared with it. The whole shore was covered with cocoa trees; and the number of houses and plantations, and of canoes that we distinguished very plainly upon the beach, seemed to indicate a great population. From the east end where the land is flat, it rises gradually to the foot of the mountain Mowna Roa, which, according to Dr. Horner's admeasurement, was 2254 toises high, consequently 350 toises more than the Pik of Teneriffe. It is in its form the most extraordinary mountain in the world; and may be reckoned among the highest: it is properly called a Table Mountain; for the summit, which at this time of the year is quite free from snow, forms a perfect flat, saving an almost imperceptible height on the east side. Upon the first day of our arrival it was only clear for a few moments of the clouds that enveloped it during the greatest part of the day; but in

the course of the next two days we had frequent opportunities of admiring this astonishing mass, whose summit occupies a space of 13,000 feet. We had not once a perfect view of the whole mountain; nor can this happen but very seldom; for when the upper part of it was free from mist, the center was surrounded by clouds that appeared never to separate, and seemed to be suspended from the majestic summit which rose above them. In the morning, when the air is still clear and free from mist, you have the best view of this mountain.

From what we were able to judge by the few natives who came on board, they are not of the handsomest, compared with the people of Nukahiwa. They are shorter and ill-proportioned, their colour is much darker, and their bodies are scarcely tatooed at all. Among those who came off to us there was hardly one whose skin was not scarred, either in consequence of the venereal disease or of the use of the kava; though among the lower or poorer classes, these marks could not arise from the latter cause. Decided as the advantage appeared to be in favour of the Nukahiwer in a physical point of view, the native of Owaihi seemed equally superior to his more southern neighbour in mental acquirements. A constant intercourse with Europeans, particularly Englishmen, of whom there are several in the island, may have contributed not a little to produce this effect. Cheerfulness, activity, and a lively quick eye, we perceived more or less in all whom we had on this day any occasion to treat with. The construction of their canoes was decidedly superior to that of the people of Nukahiwa, and they manage them with a skill in which the latter, to whom the sea does not at all appear a natural element, are very far behind

them. From the specimens given in Captain Cook's voyages, of several words of the language spoken in these two groups of islands, it should seem that the natives ought perfectly to comprehend each other, as many of the words bear the closest affinity; our wild Frenchman, however, could not make himself understood, nor interpret the least thing for us: a few English words, which these islanders pronounced with tolerable correctness, assisted us greatly in our intercourse with them, and enabled us in some degree to understand them. The difference in the pronunciation of the people of Owaihi may perhaps be the reason of their not comprehending the Frenchman. On the whole, he formed so ill an opinion of the inhabitants of these islands, that he repented of his determination to remain here, and begged I would suffer him to continue on board. Although I had great reason to feel offended at, and even to resent his conduct to us at Nukahiwa, I acceded to his request; easily foreseeing that he would play a still more pitiful part here, than he had done in the former island.

At day-break the next morning, I steered for the southern point of Owaihi, where, by Cook's account, there is a large village, from which a great quantity of provisions were brought to him; and I hoped at this place, as well as along the whole coast, to be able to procure an abundant supply, with tolerable facility. At about eleven we weathered this point, which is rendered conspicuous by a low broken rock, and by being surrounded with a reef about a hundred fathoms from the shore, over which the sea broke with great violence. By Cook's observations this point is in latitude 18° 53′, and longitude 155° 45′. At noon it bore S. E. 78° distant, at the most, about

three miles. Dr. Horner and Lieutenant Löwenstern took an observation of the latitude, and found it 18° 54′ 45″ N. agreeing very nearly with that of Captain Cook. With regard to the longitude, we found the error of our watches to be one minute less than it was the day before. As soon as we perceived the above mentioned village we lay-by, and, as the wind was fresh, at a distance of not more than two miles from the shore. After waiting two hours three canoes came off to us: in the first was a large hog that certainly did not weigh less than a hundred pounds, and occasioned us no small satisfaction. I already destined it for a Sunday dinner for my crew, and my mortification was therefore the greater, at not being able to purchase even this, the only one which was brought on board. I offered them every thing I had to dispose of; the best hatchets, knives and scissars, whole pieces of stuff, and a complete suit of clothes were refused; the possessor demanding a large cloth mantle capable of covering him from head to foot, and with which we had not the means of supplying him. From one of the other canoes I purchased a small sucking pig, the only article in the way of provisions, that I procured from these three canoes. A very immodest dressed up girl, who spoke a little English, experienced the same fate, as the one who had been brought to us the day before. This day's barter, which turned out much worse than I could have calculated upon, convinced me that no provisions were to be procured without cloth, an article which they demanded for the least thing, even in Karakakua; and perhaps there less importunately than in this place, as luxury must naturally be carried to a higher pitch at the residence of the well known Tamahama, the king of Owaihi. What an astonishing change must have taken place in the circumstances of the

natives of this island, in the short space of ten or twelve years! Tianna,* whom Meares in 1789 carried with him to China, never inquired during his stay at Canton, the price of any wares otherwise than by asking, How much iron do you give for this? So greatly was he impressed, even after a year's intercourse with Europeans, with the value of iron. At present the natives of Owaihi appeared almost to despise this metal, and they scarcely deigned to look upon even the most necessary tools. Nothing would satisfy them that did not flatter their vanity.

As we perceived no other boats putting off to us, I steered under very easy sail along the south-west side of the island until six o'clock, and then south, in order to keep away from the land during the night. Although I had but very little hopes of procuring provisions, I resolved not to give over my endeavours until I had tried upon the west coast, and in the vicinity of Karakakua. About one o'clock, therefore, the next morning, I put the ship about to the northward, and towards half past four Mowna Roa bore N. N. E. and the south point of Owaihi N. E. by E. A thick mist however covered the whole and prevented our seeing the rest of the island, the distance of which was certainly not ten miles. About eight the wind veered to the northward, and was so moderate that even had it been fair, we should have had but little prospect of fetching Karakakua. This unfortunate circumstance, and the uncertainty whether we should even there succeed according to our wishes, made me determine upon losing no more time,

* A chief of the island Atuai.

and on quitting the coast immediately for Kamtschatka, where we should arrive without fail about the middle of July. However, before I made known this determination, I directed Dr. Espenberg carefully to examine the whole crew, and he did not find the least symptom of scurvy upon any one of them. Had he perceived any marks of this complaint, I should infallibly have gone to Karakakua, even if it had occasioned us the loss of a week, a space of time which in our actual circumstances was of the greatest importance to us; for I had bound myself, upon changing the plan of our voyage, to get to Nangasaky this same year; and after the north-east monsoon should set in, I conceived I could not do this without difficulty. I acquainted my officers with my resolution to quit Owaihi, and my motive for so doing. Although they had all rejoiced at the prospect of our stay at Karakakua, and were naturally anxious to obtain fresh provisions, no other kind having come to our table during three months, than what were cooked for the ship's company; they appeared to be all perfectly satisfied with my determination. Captain Lisianskoy, whose time was not of equal consequence to him, resolved, on the other hand, to run into Karakakua bay for a few days, and then continue his voyage to Kodiac.

About six in the evening the southernmost point of Owaihi bore N. E. 87°: the east side of Mowna Roa N. E. 52°. These I made my point of departure, which by Vancouver's chart was latitude 13° 58′ and longitude 156° 20′. About half past seven we parted from the Neva, with a fresh east wind that had sprung up after some hours calm; I steered south-west, as it was my intention to sail in the parallel of 17° to the 180th degree

of longitude, which I was induced to do for two reasons: first, because in the parallels of 16° and 17° the trade winds are fresher than in the 20th or 21st degree; and secondly, because this course would lie nearly in the middle between that pursued by Captain Clerke in 1779, and the course steered by all merchant ships in their passage from the Sandwich islands to China;* and this gave us a chance of making some new discovery.

On the 11th June at noon, we were in 17° 59′ 40″ N. and 158° 00′ 30″ W. By observation we found that the current had carried us, since eight o'clock the preceding evening, fifteen miles to the north, and eight to the westward. The two following days, it continued to impel us at the same rate, and in the same direction; until we reached the latitude of 16° 50′, and longitude of 166° 16′, when it ran to the north-east. Two sets of lunar observations on the 11th, reduced to noon, gave for our longitude 157° 58′: by No. 128 it was 158° 00′. Dr. Horner's observations agreed very nearly with mine, a fresh proof that the longitude of the different points of Owaihi is very correctly determined, and consequently that the new rate assigned to our watches was right. But as some trifling difference had taken place between them, we altered it a little, assigning again to No. 128 the rate of its going at St. Catherine's, namely −24″; to No. 1856 half a second more = + 27″ 5; and to Pennington's watch two seconds less, namely

* Captain Clerke followed the parallel of 20° to the longitude of 179° 20′. The merchant ships sailing to China from the Sandwich islands, generally keep in the parallel of 13° until they reach the Marianas.

—15″. Although this alteration was merely an approach to the mark, made only upon probable grounds, still we deemed it to be not unnecessary, since for several days, this difference between their rates had been constant. The fine weather and the clear atmosphere enabled us on the six following days, from the 12th to the 18th June, to make daily calculations of our longitude, by means of lunar observations. The result of these, which took place under the most favorable circumstances, was, that during the four first days the watches had in the mean given the longitude 4′ 49″ too much to the east, while those of the two last days showed that they were 6′ 11″ too much west. The greatest difference during these seven days' observations, did not amount to five minutes in those which were too much eastward, and in the westerly ones only two minutes: Dr. Horner's observations agreed in the same proportion. This error was too trifling to inspire mistrust againt the rate assumed for the watches, at the Sandwich islands; and, indeed, the greatest difference between the three watches, had hitherto been but two seconds of time; later observations certainly made the difference much more considerable, and this could not but be expected, as the temperature of the air experienced a greater change. The mean of all our observations by No. 128, reduced back to the southern extremity of Owaihi, made its longitude 155° 19′ 16″ W.: its true longitude, according to the frequent observations of Captains Cook, King, and Vancouver, is 155° 17′ 30″.

On the 15th June we saw in latitude 17° and longitude 169° 30′, an extraordinary number of birds, that hovered round the ship in flocks of upwards of a hundred; this raised

our hopes of meeting with land very considerably; but although the night was perfectly clear, and we kept a good look out, there was none to be perceived. I cannot however but think, that during the night we must have passed near some island, or rock, standing above the water, that serves as a resting place for these birds; for we again saw several the next morning, nor did we lose sight of them until noon. La Perouse in 1786, and an English merchantman in 1796, discovered west of the Sandwich islands, the first in the parallel of 22° and the latter in that of 18°, two small rocky islands both extremely dangerous, and it is very probable that many more of this kind might be met with.* Although I did not consider it necessary to offer a reward to those who should first discover land, as the men, the officers, and myself, were all equally anxious on this head; nevertheless, I doubled that which had hitherto been held out in the hopes of rendering some of them more watchful.

On the 18th June, in latitude 17° 30′ and longitude 176° 46′, I steered a rather more northerly course, and on the 20th in latitude 19° 52′ and longitude 180° 00′ N. W. by N. The same day we crossed the course followed by Captain Clerke, and immediately left it at a distance, as it ran much more to the westward. During the whole passage from the Sandwich islands to Kamtschatka I endeavoured, with pretty tolerable success, not to approach the line in which he kept nearer than by a hundred or a hundred and twenty miles. As we got to the

* The Neva in her passage from America to China in 1805, found near this place a very dangerous sand island in 173° 35′ 45″ W. and 26° 02′ 48″ N.

northward the wind became more moderate and variable. The weather had hitherto been very fine, the trade wind constantly blowing, with a clear sky, and with a degree of force that carried us never less than seven knots an hour. The sea was perfectly calm, and we met with none of those swells of which Captain King so much complains. The temperature was particularly cool, the quicksilver in the thermometer never rising above 21°; and, although at this time the meridian altitude of the sun was 83° and 84°, it sometimes fell below 20°. The variation of the needle we had observed to be gradually increasing since our departure from the Sandwich islands, and in the 20th degree of latitude, and longitude 180°, it seemed to have attained its maximum, that is to say 13° 20′ E., for it now began to decrease in nearly a like proportion; and upon our arrival at Kamtschatka was the same as at the Sandwich islands, viz. 4° 46′ E.

As the meridian altitude of the sun on the 22d June would be nearly 90° when the sun is very difficult to observe, Dr. Horner reckoned before hand the true time of noon, and the height thus obtained we admitted as that of the meridian; our latitude, calculated in this manner, agreeing within two minutes of that by the ship's reckoning;—a difference which, for some days past, we had already found between the latitude by our observations and our calculations. On this day we crossed the northern tropic in longitude 181° 56′ W.: a calm now ensued which lasted two days, during which the sea was without the smallest motion, and was, in the true sense of the word, like a mirror, a state in which I have never seen it except in the east. Dr. Horner availed himself of this calm to make some

observations on the temperature of the water. He found that in Six's thermometer the quicksilver fell 13° 3′ at a depth of 125 fathoms; on the surface of the water it stood at 20° 5′ Reaumur, so that a difference took place of 7° 2′; Hales's machine only shewed a difference of 2½°. At fifty fathoms Six's thermometer was at 17° 3′, and at twenty-five fathoms 19° 7′; thus in these latitudes the difference in the temperature of the water at a depth of twenty-five fathoms is one degree; at fifty fathoms 3° 3′; and at 125 fathoms 7° 2′ Reaumur.

After this calm we had a pretty fresh wind at E., and a continuance of fine clear weather, until we got into 27° of latitude. This was the boundary of the N. E. trade wind, and from this time we had variable winds, blowing first from the S. E. and S.

On the 28th June we were in latitude 29° 3′, and our longitude, by several sets of lunar observations, was 185° 11′ W. No. 128 made it 186° 00′, so that the westward inclination of this watch had already increased to 49′. By the next day's observations it was 48′ 30″, by of a mean of all therefore 44′ 45″.

In latitude 30° we had, with thick hazy weather, a very strong westerly wind, accompanied by heavy squalls that tore some of the old sails, which I had not had unbent, thinking them past mending. This weather was followed by another calm, and we availed ourselves of it, to calculate the temperature of the sea, lowering a boat that it might be done with more accuracy.

On the 2d July we were in 34° 2′ 41″ and 190° 7′ 45″ W. By

our observations we found that we had been carried by a current thirty-seven miles N. E. by N. in the space of three days. On the 29th June, the last day on which we had observed, the current ran 13′ S., a change in its direction which was as welcome to us as it was unexpected. The next day we were in latitude 36°, and by our watches corrected by the last lunar observations in 191° 30′ W.

His Excellency Count Romanzow had given me particular instructions, previous to my departure from Russia, to look out for an island, that had been formerly repeatedly sought by the Spaniards and Dutch. As to the first discovery of this land the world is completely in the dark, and it rests upon ancient, perhaps fabulous reports.* The Spaniards, who had heard that an island, very rich in gold and silver, had been discovered to the east of Japan, sent a ship there in 1610 or 1611 from Acapulco with orders to take possession of it. The Dutch were equally allured by the supposed wealth of this land, and sent two ships under the command of Captain Matthias Kwast for the same purpose. But this undertaking did not succeed better than that of the Spaniards.† The attempt made by the celebrated Captain Vries on board the Castricom in 1643, and by La Perouse in 1787 to discover this land, proved equally unsuccessful. Of modern navigators La Perouse is indeed the only one who has really made this attempt,

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*In the original Japanese charts there are two uninhabited islands surrounded by rocks lying to the east of the bay of Jeddo: perhaps this circumstance may have given rise to the belief of their existence.

†Adelung's History of the Voyages and Attempts made to discover a North-west Passage to Japan and China, (in 4to.) p. 477.

since neither Cook, in his voyage from Unalaschka to the Sandwich islands, nor Clerke, in proceeding from these islands to Kamtschatka in 1779, nor indeed Dixon, Vancouver or any others have ever renewed it. I do not know any work in which the parallel followed by Captain Kwast in search of this island is mentioned; but it is probably the same in which Vries was directed to look for it, viz. that of 37° 30′ which he followed from the 142d degree of east longitude from Greenwich to the 170th. La Perouse continued in the same parallel from 165° 51′ east longitude of Paris to 179° 31′, one point from 13° 41′.*

I had very little hopes of being more successful than my forerunners in my endeavours to find this island, particularly as owing to the bad weather we had not a very extended horizon: I considered it nevertheless as my duty to avail myself of the east wind which blew pretty fresh, to add something to the knowledge of a circumstance that had so long occupied navigators and geographers perhaps to no purpose. As nothing is known of the position of this island, it must be left to every navigator to chuse, in seeking it, any parallel either to the east or west which he may think proper. I had in my own mind determined upon the 36th degree of latitude, and I can only regret that the weather was any thing but favourable to us. At noon I steered west with a strong east wind; towards evening the wind increased, and in the night it blew so hard as to oblige us to strike our top gallant masts and yards, and to close reef our topsails. About six o'clock the next morning the wind abated

* La Perouse's Voyage, English translation in 4to., vol. 2. p. 266.

a little but veered gradually to the south, the weather still being very foggy. This induced me not to continue a westerly course any longer, as no advantage could be expected from this search, while it might prove very detrimental to us. About eight, therefore, I steered N., after having run in twenty hours 3¼° W. in the parallel of 36°. A little before noon the weather cleared up, and I already repented of having altered my course; but my regrets were not of long continuance, for the change of weather was also accompanied by a change of wind. Towards noon it blew S. W. and shortly after W. S. W. and forced us to steer a northerly course. The constant fogs which prevail in this sea, will always render such an investigation very difficult unless when there is no other object in view, and several months can be spent upon it. From the 30th degree of latitude until our arrival on the coast of Kamtschatka, we were almost constantly in a thick fog that never cleared away but for a very short time. The search for this land would be more likely to prove successful, if pursued from west to east rather than in the contrary direction, as the westerly are the prevailing winds in these latitudes.

On the 5th July at noon we saw a large turtle; I immediately lowered a boat in order to catch it, but our labour was fruitless, as it dived as soon as the boat approached it; at that time we were in latitude 38° 32′ N. and longitude 194° 30′ W. Meares in 1788 saw a turtle in nearly the same place, namely in latitude 38° 17′, and longitude 194° 50′; however, we met none of the proofs of land which he fell in with.* The wind

* Meares's Voyage, original edition in 4to. page 99.

was now very variable, accompanied by thick fogs and rainy weather: on the 7th July we saw in latitude 42° 34′ and longitude 197° 00′, a number of seamews and a large black bird of a species said never to fly far from land; the sea was besides perfectly calm, although the wind which had blown fresh from the south-west had now shifted to the north-east. From this striking calmness of the sea, the vicinity of land might be inferred, but any discovery hereabouts must be the effect of chance, owing to the constant fogs that prevail.

On the 10th July being in latitude 47° 20′, the wind blew so hard during several hours, that we were obliged to double reef our topsails. The next day at noon we were in latitude 49° 17′, and by the timepieces in longitude 199° 50′, consequently a very short distance from land, the vicinity of which several circumstances tended to announce; for we now saw a quantity of birds such as sea-mews, different species of the Greenland diver, wild ducks, a kind of larks of a grey colour with a yellow stripe on their backs, and a large white bird not unlike an albatross.

On the 13th July towards eight o'clock, land was descried from the mast head. It trended away from N. N. W. to W. N. W.; and we conceived its distance about ninety or ninety-five miles. By our latitude and longitude it must have been the land near Cape Poworotnoy, called Cape Gavarea on the English charts. It soon disappeared in the mist, and we did not again see it until eight o'clock the same evening, when we were in nearly the latitude of Poworotnoy, namely, 52° 21′ N. A lofty mountain bearing the same name in our chart of this

part of the coast of Kamtschatka, owing to its vicinity to the cape, lay nearly due west of us.

At day-break we saw to the north a high mountainous land, which, from its direction, must have been Shipunskoy-noss; the position of this cape is given very differently, in the best charts of the coast of Kamtschatka. In that of the Russian discoveries, which was only published in St. Petersburgh in 1802, Shipunskoy-noss is laid down in 52° 56′ N. and 177° 38′ E. of Ferro, or 200° 07′ W. of Greenwich: by Admiral Sarytscheff's chart it is in 52° 02′ N. and 200° 15′ W.: by the chart accompanying Captain Cook's third voyage, in 53° 10′ and 192′ W. Captain King in his description of the coast of Kamtschatka, has given the situation of Shipunskoy-noss, differently in two different places. In the third volume of Cook's third voyage, original edition in 4to, page 310, he states that Shipunskoy-noss lies in 52° 21′ N. and 201° 12′ W.—N. E. by E. ½ E. of Cape Gavarea ninety-six miles; and page 311, that it lies in 52° 51′ N. and 201° 12′ W., E. N. E. ½ E. of the entrance of Awatscha bay, seventy-fives miles distant. By the situation stated in page 310, the latitude of Shipunskoy-noss must be 53° 32′, and its longitude 199° 26′, by the other 53° 16′ N. and 199° 15′ W.: in both of which statements an error has probably crept into the press: by our observations Shipunskoy-noss lies in 53° 06′ N. and 200° 10′ W. During the whole day it was quite calm, nor was it not till the evening, that a breeze sprang up from the south, by the help of which we approached the land. Before sunset we saw the five mountains that so clearly distinguish the coast of Kamtschatka, and of which Captain King has given a drawing as correct as his description. It was

calm during the whole night; about four o'clock in the morning, however, a fresh breeze sprang up from the westward, and as we approached the land, it gradually veered to south south-east. About eleven *a. m.* we ran into Awatscha bay, and at one anchored in the harbour of St. Peter and St. Paul, after a very good passage of thirty-five days from Owaihi, and five months and a half from Brazil. At this time we had but one invalid, and in a week he became perfectly well.

CHAPTER XI.

STAY AT KAMTSCHATKA AND DEPARTURE FOR JAPAN.

Occupation on board the Ship in the Harbour of St. Peter and St. Paul—Uncertainty with regard to the continuance of our Voyage—Arrival of the Governor from Nischney Kamtschatsk—Determine upon pursuing our Voyage—Change in the Ambassador's Suite—The Nadeshda quits Kamtschatka—Storm in the Parallel of the Kuriles—The Ship springs a considerable Leak—We determine the Non-existence of a few Groups of Islands, that are laid down in some old Charts to the East of Japan—Captain Colnett—Straits of Van Diemen—We see the Coast of Japan—Violent Storm followed by a great Typhon—We approach the Coast of Japan a second time, and sail through the Straits of Van Diemen—Description of these Straits, and of the Islands lying within them—Anchor at the Entrance of the Bay of Nangasaky.

We did not find the governor of Kamtschatka at the harbour of St. Peter and St. Paul, his usual residence being at Nischney Kamtschatsk, about seven hundred wersts from thence. As his presence was of importance to us, the ambassador immediately dispatched an estafette, with a request that he would come without delay to St. Peter and St. Paul, and bring a company of soldiers with him; but his arrival could not be expected in less than a month. In the mean time, Major Krupskoy, the commandant of Petropawlovsk, did every thing in his power to assist and be of service to us. He gave up an apartment in his house to the ambassador, and issued orders for bread to be baked for our crew, and the ship to be supplied daily with fish; and after a voyage of five months and a half, during which we had been obliged to forego fresh provisions, it

was eaten with an eagerness, those only can form any idea of who have been in a similar situation. The ship was immediately unrigged, and every thing sent on shore, the landing place not being fifty fathoms distant; and after so long a voyage all the sails and rigging required either a thorough repair, or to be replaced with new. All the materials and effects which had been shipped at Cronstadt for Kamtschatka were unloaded; and nothing was left on board but 6000 pud* of iron, which I did not send on shore, fearing it would cost us too much time.

I had the greatest reason to hasten every thing as much as possible, in order to arrive at Nangasaky before the north-east monsoon should set in, and I was anxious to sail from Kamtschatka in a fortnight at the latest; but could I have foreseen that our stay at St. Peter and St. Paul would have exceeded six weeks, and that we should pass the last three of these not only without employment, but quite uncertain about the continuance of our voyage, I should undoubtedly have unshipped the iron, which I was afterwards obliged to cover hastily with ballast. Almost all the presents destined for the Emperor of Japan, particularly the articles made of steel, were sent on shore, as the ambassador was desirous of ascertaining himself the condition in which they were. As we wanted craft to carry our ballast, the commandant made over two old boats to us, that had belonged to Billing's ship the Slawa Rossii, and had

* A weight of forty pounds.

been carelessly suffered to sink in the harbour of St. Peter and St. Paul.

On the 12th August the Governor arrived, accompanied by his younger brother, who acted as his adjutant, and by Captain Feodoroff and sixty men, whom he had brought with him at the request of M. de Resanoff,* and it was settled that we should sail in a week after his arrival. The governor was so good as to remain at St. Peter and St. Paul during our stay, in order to afford us any assistance we might need, and we felt the presence of this active and amiable man in an extraordinary degree. A trifling change took place in the suite of our ambassador: Count Tolstoy, lieutenant of his Imperial Majesty's guards, Dr. Brinkin,† the physician to the embassy, and M. Kurlandzoff, who had been engaged as draftsman to the expedition, quitted the ship, and set out from hence to St. Petersburgh; and in their stead Captain Feodoroff, of the Kamtschatka battalion, and Lieutenant Koscheleff, the governor's brother, accompanied us as part of the ambassador's suite; and as he had not brought any guard of honour with him from St. Petersburgh, he selected eight men here, who were to be left again in Kamtschatka upon our return from Japan. It was likewise settled to leave Kisseleff, a native of Japan,

* When the mode of travelling in Kamtschatka is considered, the difficulties attending the conveyance of 60 soldiers a distance of 700 wersts, in all possible haste, will easily be imagined. The object, however, which required their presence in Petropawlovsk was too important to admit of any difficulties being urged against sending for them.

† Dr. Brinkin died shortly after his arrival in St. Petersburgh.

who was to have acted as our interpreter, behind; his conduct during our stay here not having been proper, besides that he was hated by the rest of his countrymen. The ambassador conceived, too, that the Japanese would be extremely incensed upon learning, what they could not fail to observe the first evening of his arrival, that he had embraced the Christian religion; and the wild Frenchman, whom we brought with us from Nukahiwa, was also left at Kamtschatka.

I wished, and Dr. Espenberg agreed with me, to have left the locksmith of the ship behind, his health appearing to us in a dangerous state. He had been pretty well during the whole voyage; but the seeds of consumption were very apparent in him. Its symptoms had increased considerably, owing to his intemperance; and the heat on the passage from Brazil had particularly weakened him. To his excesses on his arrival in Kamtschatka he owed a most dangerous illness that soon after seized him. At the time of our departure for Japan he had, in some measure, recovered, but I was afraid that upon any fresh relaxation his illness would again break out; nor could I be certain whether, in Japan, we should be able to keep a watchful eye upon him. I was desirous, for these reasons, to have sent him back to St. Petersburgh; but he declared expressly that he had rather die on board the ship amongst his companions than return by land. As he swore too, most solemnly, never again to indulge in an excessive use of spirituous liquors, I allowed myself to be persuaded to keep him in the ship; and during the rest of our voyage he never once broke his word, and returned to Europe perfectly restored in health.

On the 29th August, the ship was quite ready for sea; and on the 30th we left the harbour of St. Peter and St. Paul, and anchored in Awatscha bay, about half a mile from the watering place. The next day, the governor and the officers of the garrison dined on board; and I received him with every mark of honour due to his rank: the more willingly, as this respect was shewn to a man who had so many claims to our esteem, gratitude, and consideration.

Until the 6th September the weather was constantly thick and rainy, with south, south-east, and east winds, which were so variable, that frequently, in the course of an hour, we had the wind from every point of the compass between south and east. Unpleasant as was our stay here, we were in some degree compensated for it, by the arrival of supplies from Nischney Kamtschatsk, whither the governor had sent a serjeant and two Cossacks with six horses, to bring us the stock of provisions which he had laid in for the consumption of his own family during the winter. In doing this, he deprived himself of every thing: for of the provisions destined for us, many sorts could not be replaced; and the few that were to be procured, could only be met with in small quantities, or of inferior quality. Besides this, he sent to Werchnoy Kamtschatsk, for three oxen belonging to the crown, and two others, his own property; a present, considering the great scarcity of horned cattle in Kamtschatka, of very considerable value. If the distance of 400 wersts from St. Peter and St. Paul, and of 700 wersts, or 100 German miles, to Nischney Kamtschatsk be considered, and that this space could not, with all possible speed, be travelled in less than twenty days, I do not know which to admire most, his noble generosity or his readi-

ness to serve us. He spared no pains to supply us with every thing in his power to procure, to whatever distance he might have to send for it; nor would he even be deterred, by the uncertainty of our awaiting its arrival, from sending for his own stock of provisions, the conveyance of which was attended with so many difficulties. Owing to the lateness of the season, I wished to proceed upon our voyage to Japan as soon as possible, and we were indebted only to the contrary winds, upon which the governor was so good as to calculate, and the extraordinary haste of his serjeant, Semenoff, who arrived in seventeen days, for the receipt of this supply before our departure.

I doubt whether any ship ever sailed from this harbour so well provisioned as we were; and shall mention the chief articles we were furnished with, in order to shew what Kamtschatka was competent to provide. We had seven large live oxen; a considerable provision of salted and dried fish of a superior quality, such however as can only be procured at Nischney Kamtschatsk; a great supply of vegetables from Werchnoy; several casks of salt fish for the crew, and three large barrels of wild garlic, which, in Kamtschatka, is called *Tscheremscha*, and is, I believe, a perfect antiscorbutic, and a most admirable substitute for sourkraut. The water in which this wild garlic is preserved, and which may be renewed daily, affords a wholesome and not unpleasant beverage. Besides these, we received several delicacies for our own table, such as salted reindeer and game, argali or wild sheep, salted wild geese, &c. for all which we were indebted to the governor who, if I may be allowed the expression, employed all Kamtschatka

to our advantage; for, before his arrival, we had been able to procure nothing but fish.

On the 6th September the wind veered to north-west, and we got under sail; when the governor immediately came on board to wish us a happy voyage. The ship was scarcely under weigh, when the fort saluted us with thirteen guns, which compliment we returned with an equal number. The wind was so moderate, that we scarcely moved forward with the help of the ebb and two boats towing us; and as the flood set in about noon, we were obliged to let go our anchor in seven fathoms water, at the entrance of the strait leading from Awatscha bay into the sea. The wind shifted with the flood to south-east, blowing fresh, with a thick mist and rain. In the afternoon I sent off two officers to sound both the shores of these straits, and found the depths marked in Captain Cook's plan of Awatscha bay perfectly correct: indeed the whole plan of it, as well as the three harbours adjoining, is drawn with an accuracy that cannot be exceeded.

At seven the next morning, a moderate breeze sprang up from the north, and as it increased, we sailed with it through the straits, which we left behind by about nine o'clock. I first of all steered S. E., then S. S. E., and afterwards S. by E., but a heavy swell from the S. E. held us back a little. The wind blew very fresh and continued, as before, foggy, with constant rain. About eleven, the small island Staritschkoff* bore N. W. 80°,

* This name is derived from a species of birds the Russians call Staritschki, which have chosen this island as their residence.

and the eastern promontory, at the entrance of the straits, N. W. 20°. A thick fog soon after concealed the land from us, and about twelve we entirely lost sight of it. At six in the evening Cape Poworotnoy appeared, bearing W. by N. but owing to the thick mist we only saw it for a moment. Throughout the night the wind blew pretty fresh with a heavy swell from the east; and the next morning, though it became more moderate, the waves ran higher than before. The lateness of the season, and the particular object of this voyage allowed me to think of nothing but the means of getting as soon as possible to the south-east coast of Japan: I steered, however, according to my former plan, a course directly in the middle between those of Captains Clerke and Gore. The line of the first we crossed in latitude 36° and longitude 214°, as soon as we began to approach the coast of Japan.

The whole time we lay in the road of St. Peter and St. Paul, we had, as I have already observed, constant drizzling rain with a thick fog; nor did this weather leave us during the first days of our departure. At length the sun, that we had not seen for upwards of ten days, appeared, though only for a few moments, and enabled us to dry our beds and clothing, which were completely soaked. On the morning of the 11th a strong gale sprang up at east, and soon increased to a storm, which attained its height about five in the afternoon. The waves ran extremely high; about midnight the storm abated a little, but it did not cease until the next morning: at noon it again fell calm, and soon after we had a gentle breeze from the north, which increased gradually. We could not at first avail ourselves of it, as, owing to the heavy swell from the eastward, we were

unable to set all our sails. During the last storm the ship had made so much water, that we were obliged to keep the pumps constantly at work, and as she had been carefully caulked during our stay at Kamtschatka, this new leak seemed to be under the copper, which, upon farther examination at Nangasaky, we found to be the case. On this day we saw several whales, and a vast number of land and sea fowls, several of which let themselves down, quite fatigued, upon the ship, and were caught by the men. Captain Gore saw in the parallel of 45°, where we now were, only rather nearer the land, several land birds, a circumstance that led him to suppose the vicinity of the Kurile islands.

The stormy weather that prevailed almost constantly since our departure from Kamtschatka, and particularly on the 11th, and which had rendered an almost continued pumping necessary, obliged us to kill the remaining four of our oxen, as they had suffered so much by the motion of the ship as to leave but little hopes of their recovery.

On the 15th at noon the sun appeared, but only for a few hours. Our latitude by observation was 39° 57′ 29″ N. and the longitude by our watches 201° 7′ 30″ W. We now began to be aware of a great alteration in the temperature of the atmosphere; the quicksilver, which had hitherto shewn only eight or nine degrees of warmth, rising to fifteen and sixteen degrees. On the 16th, in the evening, we had the first observations for the variation of the compass. Two sets varying from 1° 7′ to 2° 30′, gave as the mean 1° 48′ 30″ E. We were then in latitude 38° 40′ and longitude 209° 25′. The motion of the ship

had always been too great to permit our observing the dip of the needle with any degree of accuracy; and the only observation of this kind that Dr. Horner had been able to make, was in latitude 48° 30′ and 201° 40′, when he found the northern dip to be 59° 30′.

The stormy weather again commenced, and the rain fell incessantly. The wind was from the north-east with a very heavy swell; and although this favoured our voyage, as we seldom ran less than eight or nine knots, it was so far hard upon us, that with this quick run, and a perfectly favourable wind, the water in the hold constantly increased ten or twelve inches in an hour, while with a side wind we seldom made more than five or six inches; from which we inferred, that the chief leak must be in the foremost part of the ship.

In the charts accompanying La Perouse's voyage there is a group of four islands without names, of which the northernmost is in latitude 37° and longitude 143° 30′ E. of Paris, or 214° 20′ W. of Greenwich; and with the name of *Volcano*, an island of tolerable size in latitude 35° and longitude 214°, with some smaller ones lying to the southward of it. In the chart found by Lord Anson on board the Spanish galleon *Nuestra Señora de Cabadango*, and published with some improvements in his voyage, there are two groups bearing the names of *Islas nuevas del Año* 1716, and *Islas del Año* 1664, (the northernmost lies upon this chart in latitude 35° 45′, and 19° E. of S. Bernardino, or longitude 216° 30′ W. of Greenwich, the other in latitude 35° 00′, under the same meridian as the first,) and another island called *Volcano*, well to the southward of these two groups, in latitude

34° 15′; and in latitude 33°, nearly two degrees more to the E. an island bearing the name of *Peña de los picos*, and a rock called *Bayro*. In the existence of these islands Arrowsmith appeared to place no faith, as they are not to be found in any of his charts; the last of those in Anson's chart, is likewise in a new and very good one, prepared by the French geographer Barbié de Bocage for the voyage of Admiral Dentrecasteaux, written by the naturalist La Billardière. I did not myself much believe in them; for the course held by Captains Gore and King, after quitting the coast of Japan, ran between the northern group and the northernmost Volcano island; and that followed by Captain Colnett, in his passage from China to the north-west coast of America, in the year 1789, ran between the two southernmost, and at such a distance only, that in clear weather both Gore and Colnett must both have seen land. I would not, however, let this opportunity slip of placing their non-existence beyond a doubt; and therefore held such a course as would carry me right through the center of them, as marked in the charts: and I can affirm, that the four northernmost and nameless islands, the northernmost Volcano island, the Islands of the Year 1664, and the southern Volcano island, are not, at least, in the situation assigned to them in the French chart. We sailed at a distance of seventy-five miles *from* the Islands of 1716, so that I cannot decide any thing with regard to them. On the 18th September, about half past five in the evening, as we were in latitude 36° and longitude 213° 45′, we fancied we saw land bearing due west, but were soon convinced of its being clouds, whose forms had led us to mistake them for small islands. As some of the people on board the ship still seemed to be of opinion that what we saw might be

land, I steered until seven o'clock directly towards it; and before it was dark we were all convinced of our mistake, and I again resumed our former course to the south-west.

The clearness of the weather allowed us to take several sets of observations of the distance of the moon from the star Atair. Dr. Horner's observations reduced to eight o'clock, gave 214° 03′ 30″ W. mine 213° 57′ 45″. N°. 128 at the same moment was 213° 55′. We were very well satisfied with this agreement, which the heavy motion of the ship scarcely allowed us to expect. The next evening's observations, made under more favourable circumstances, shewed a similar agreement, and convinced us of the correctness of our timepieces.

The change of temperature was extremely sudden, the quicksilver was between 19° and 21°, while on our voyage from the Sandwich islands to Kamtschatka it was only 16° and 17° in the same parallel; and even in 30° of latitude, though in the height of summer, it had never risen to 21°. This small degree of heat in the months of June and July was, perhaps, owing to our great distance from the land; or, it might be, that the maximum of summer heat may be later here than in Europe.

Since our departure from Kamtschatka we had had, with very few intervals, a hollow sea, running high from the N. E.; but on the 20th September, when we were in latitude 34° 20′ and longitude 215° 29′ 45″, every body was struck with the extraordinary calmness of the sea, although the wind blew fresh from the south-east. We could not therefore quite reject the probability of finding land to the S. E. particularly as on this

day we saw, for the first time, flying fish, a great many porpoises and tropic birds, which seldom are seen so much to the northward, at least at any distance from land. In the variation of the needle there was hardly any alteration; the observations made on this day scarcely differing a degree from those of the 18th and 19th. It appeared to decrease gradually, but the changes were so trifling, that considering the roughness of the sea, they might be ascribed as much to chance as to a regular diminution.

I intended to have looked for the island discovered by the Dutch in the year 1643, and called in the charts *'t Zuyder Eyland*, or South Island, well to the southward of Fatsisio; but when we got into the same parallel it blew so hard from E. N. E. with such thick rainy weather, that I was forced to abandon my intention. As Captain Colnett's course ran very near this island, it is not improbable that it was seen by him, and its situation of course accurately ascertained. It is a real loss to geography that this able officer, a disciple of the great Cook, should not have published his voyage in this sea in the years 1789 and 1791. All that is hitherto known of his run is the course of his ship, the track of which is in Arrowsmith's chart, *The South Sea Pilot*; and notwithstanding he promises, in the preface to his voyage in the years 1793 and 1794, to publish his early voyages also, the world has hitherto been deceived in its expectations. Sir Erasmus Gower possessed the manuscript of his voyage in the Japanese sea in the year 1791, when that officer was charged to convoy Lord Macartney to China, and had to navigate the Yellow Sea. It might almost be believed that the English government had purposely cast a veil

over the voyages of Colnett and Broughton on the coast of Japan, were it not that the liberality which they have shewn in publishing every voyage that has been undertaken during the last half century, a period so brilliant in the history of discoveries, completely controverts this suspicion. Seven years have elapsed, and Captain Broughton's voyage, which was entirely one of discovery, has not yet appeared in print. The companion of Vancouver could not fail to have rendered his work very interesting to geography and navigation; and it cannot be supposed that with the loss of his ship, his journals and charts were all destroyed; the rock Captain Broughton split upon lies, according to Arrowsmith's chart, in latitude 25° N. and longitude 145° 40′ E. of Greenwich.*

The dark stormy weather continued through the night, but as the wind was favourable I could not but avail myself of it, though it was with great caution that I steered rather a more southerly course. In the old charts of Japan that accompany the works of Charlevoix, Kämpfer, and the collection of voyages by La Harpe, the island Fatsisio lies in latitude 31° 40′, that is to say, 1° 35′ more to the south than in Arrowsmith's chart, who followed D'Anville, in whose "Carte Générale de la Tartarie Chinoise dressée sur les Cartes particulières, faites sur les Lieux par les RR. PP. Jésuites, et sur les Mémoires parti-

* Captain Broughton's voyage was published in 1804, during our absence; about the same time, therefore, that I was expressing my fears that it never would appear in print.

culiers du P. Gerbillon, 1732," Fastisio is laid down in 33° 15′, and 't Zuyder Eyland in 32° 30′.*

The next morning the storm from the N. E. abated a little, and veered round to S. S. W.; the weather still bearing a very threatening appearance. About eight o'clock the wind shifted again suddenly to the N. E. blowing as hard as before, with heavy rain. In the short time that it had blown from the S. W. when it was for a few moments tolerably calm, we saw several butterflies and *sea nymphs* which clearly proved the vicinity of land; an owl likewise came on board, and was no unacceptable present to Dr. Tilesius, who made a drawing of it; the weather was however so hazy that we had but a very confined horizon. The barometer, during this stormy weather, was higher than our former observations would have led us to expect, namely 29 *in.* 46. From a few altitudes which Dr. Horner was able to catch at noon he calculated our latitude at 31° 13′ and the longitude 220° 50′, exactly what it was by the ship's reckoning. We had run by the log in the last twenty-four hours 181 miles, and were now about a quarter of a degree to the north of what is given in the charts as the middle of the straits of Van Diemen, through which it was my intention to have sailed. Our course was therefore west, but I steered during the day rather more north in the hopes of seeing land.

I know no work where mention is made of the straits of

* Captain Broughton determines the latitude of Fatsisio to be 33° 06′, only a few minutes, therefore, different from D'Anville.

Diemen, the situation of which is even set down very differently in the charts. In that of Arrowsmith, for instance, these straits lie between the island of Likeo (which is separated by a narrow channel from the large island of Kiusiu) and one which bears the name of Tanao-Sima, while again in the French chart they are between Kiusiu and Likeo. The geographical latitude of the entrance agrees pretty nearly in both of them. It will soon be seen that both the English and French charts are very incorrect in their description of these straits. On our arrival at Nangasaky, Captain Musquetier, the commander of a Dutch ship lying there, informed me, that they were discovered by accident in the beginning of the 17th century; a Dutch vessel, on its passage from Nangasaky to Batavia, having been driven in a violent storm through them, and the captain of it giving his name to them. Captain Musquetier, who appeared to me a very well informed man, kindly offered to send me an old Dutch book in which I should find an account of this discovery, together with a description of the straits, but probably the jealousy of the Japanese prevented him from fulfilling his promise. This literary curiosity would have been extremely interesting to me.

On the 23d September, in latitude 31° 13′ and longitude 221°, the variation of the needle was 1° 02′ E., the next day it was 0° 02′ W., and the same evening in 31° 21′ N., and 225° 00′ W. this westward variation had already increased to 2° 49′. If the mean of these three observations be taken, we must have crossed the magnetic meridian in 31° 15′ latitude and 220° 20′ west longitude.

The 24th September was the finest day we had had since leaving Kamtschatka; Dr. Horner and myself did not neglect to avail ourselves of the opportunity of trying our time-pieces. Two sets of distances of the moon from Venus, which we both took at half past five in the morning, gave, reduced to noon, = 223° 21′. Seven sets of distances of the moon from the sun, between which the greatest difference was only 6′ 45″, gave, reduced also to noon, = 228° 28′. Arnold's chronometer, No. 128, and that by Pennington, which on this day did not vary a second from each other, gave us the longitude = 223° 16′, and Arnold's small chronometer, No. 1856, = 223° 30′ 45″, and by the mean of twenty calculations of the moon's distance from the sun which we observed the next day the error of No. 128 was only 2′. This near coincidence left us no doubt upon the rate of all our watches, and I waited with impatience to see the coast of Japan which we could now so correctly determine. A number of butterflies, *sea-nymphs*, land-birds, branches of trees and grass convinced us that we could not be far distant.

At ten o'clock in the morning of the 28th September we at length discovered the coast of Japan to the N. W., while we were busied taking lunar observations, which, like those of the preceding day, only differed a few minutes from No. 128. I immediately altered my course, steering N. W. with a moderate W. S. W. wind. Our latitude at noon, observed very carefully with several sextants, was 32° 05′ 34″, the longitude by No. 128 = 226° 22′ 15″. A lofty promontory, in front of which there appeared to be a small island, bore, at this moment, N. W. 28° distant about thirty-six miles. The wind that had hitherto

been very moderate, became, about four o'clock, rather fresher and enabled us to approach nearer to the land, and to take several bearings; we were still, however, at sunset, upwards of twenty miles from the nearest shore, having no soundings with a line of 120 fathoms. The coast stretched from N. W. 20° 30′ to N. W. 41°: the above mentioned promontory lying as far to the south-east as we could see. Although its situation was such that we could scarcely avoid any errors in the determination of its longitude and still less of its latitude, I nevertheless believe that, if any occurred, they did not exceed a few minutes. By our observations it was in 32° 38′ 30″ latitude and 226° 43′ 15″ longitude, and was probably the south point of Sikokf. From this cape the land took quite a northerly direction, and seemed to form a small bay of which we could distinguish the northern and western shore. In the vicinity of the promontory the country appeared to be very mountainous, sloping gradually to that part where we supposed this bay to be; it then rose again suddenly, and in the back ground of the bay, there was a large valley, bounded to the east by a chain of hills of moderate elevation; but on the west by lofty mountains, among which two were particularly conspicuous by their height and must always make this part of the coast easily known.

My hopes of being able to continue my examinations of this coast were fruitless. The next morning at day-break we perceived the land bearing N. W. 10°, but I had scarcely bent my course thither when the sky became overcast; and we not only lost sight of the coast, but our horizon did not extend, at the farthest, above an English mile. The wind blew fresh from the

N. E. with constant rain; and I considered it as not only useless but dangerous to approach the land now, as we could not in the least depend upon our charts, even though of the best. I steered, therefore, under easy sail W. and W. S. W. Towards evening the wind increased with a constant heavy rain; the sky wore a most threatening aspect, and I determined to lie-to till the next morning, and the wind increasing about midnight to a perfect storm we laid the ship to the eastward. This bad weather continued throughout the next day, and we therefore steered to the eastward under reefed courses. In the night the wind abated, veering to the south-east; and at day-break, the weather appearing clearer and the sun shewing himself, I again began to approach the land; but the heavy swell from the south-east, and the constant depression of the barometer, seemed, notwithstanding the sun at noon was sufficiently clear for us to take a tolerable observation in 31° 7′ N. and 227° 40′ W. the certain forerunners of a storm from the south-east, which, as we were on an unknown coast, was not to be despised. We held our course, however, to the west until 11 o'clock, when I altered it to the south, and set as much sail as the ship could carry. About noon the weather assumed an appearance that left us no doubt of what would soon follow. The waves ran mountain high from the south-east; the sun was of a dead pale colour, and was soon concealed behind the clouds which flew with rapidity from the same quarter; and the wind, which increased gradually, rose by one o'clock to such a height as to prevent our taking in the topsails and courses without the greatest difficulty and danger, the tackle, though almost all new, mostly giving way; but our men were

animated by an undaunted courage and a noble contempt of danger, and would not yield, so that not a single seam in any one sail was split. About three o'clock in the afternoon the storm had increased to such a degree as to rend all our storm-sails, the only ones we had set. Nothing could equal the violence of the gale. Much as I had heard of the typhons on the Chinese and Japanese coasts, this exceeded all my expectations. It would fall within the province of the poet to describe it properly, and I shall content myself with relating its effect upon our ship. It was absolutely impossible to set even a double reefed mizen storm-stay sail, and she was left quite to the mercy of the waves, which ran extremely high. I expected every moment to see the masts go by the board; the state of the atmosphere was particularly evinced by the extraordinary depression of the barometer: the quicksilver falling so suddenly that about five o'clock it had not only quite disappeared from the tube, but the great motion of the barometer, for which we had before calculated at least four, and even sometimes five lines, not even bringing it in sight. As our barometer was divided into twenty-seven inches, six lines, if we deduct from this four lines, the height of the quicksilver could only be twenty-seven inches, two lines; and it might be said, without extravagance, that it was only twenty-seven inches and indeed even less, as it was upwards of three hours before it again made its appearance. There may undoubtedly be more violent storms than this, and the dreadful hurricanes which rage in the Antilles every year, are most probably worse; but I never recollect the barometrical state of the atmosphere to have been noticed during one of these tremendous revolutions of nature. The Abbé

Rochon* mentions a hurricane in the Isle of France in 1771, when the barometer fell to twenty-five inches French, which was therefore three and a half lines lower than with us, if it be admitted that ours had fallen to twenty-seven inches.

I was not afraid of the ship so long as the masts would stand; but we were placed in another great danger, known indeed only to myself and to one or two persons on board: the wind that blew from E. S. E. drove us directly towards the land, from which we could not then be at any great distance. I fancied indeed we might still have room to drive until twelve o'clock, but if we had once touched the ground the ship must have gone to pieces, and, in so violent a storm, it would have been impossible to have saved the people. Nothing but a change of wind could remove our danger, and fortunately this took place, and it veered from E. S. E. to W. S. W. On the sudden shift of wind a sea struck the ship's stern, carried away the larboard quarter gallery, and flooded the cabin three feet deep with water, which occasioned me the loss of almost all my charts and books. This critical moment preceded a perfect calm, which fortunately lasted only a few minutes; we, however, availed ourselves of it to set a reefed mizen-stay sail, that we might be able to lay the ship in some degree to the wind. It was scarcely hauled home when the storm began to rage with the same fury as before from its new quarter. About ten o'clock it at length appeared to abate a little, and we again, to our great joy, saw the quicksilver in the barometer. We considered this

* Voyage à Madagascar, à Maroc, et aux Indes Orientales, par Alexis Rochon. 3 vols. in 8vo. An X. de la République. 3 tom. page 418.

as a certain proof that the storm would not resume its fury; and about midnight it was observed to abate considerably, although still blowing very hard. This indeed was very fortunate; for if the gale from the W. S. W. had not been altogether as violent as that from E. S. E. the first waves would not so soon have subsided, and our masts must have been in greater danger than before. The leak in the ship gave us less trouble during the tempest than I expected; for as the ordinary increase of water was before from seven to twelve inches an hour, we were not a little pleased to find that during the gale it was not, at the utmost, more than fifteen inches; but the very heavy roll of the ship rendered it difficult to work the pumps.

This tempestuous weather was followed by an extremely beautiful day, which was very welcome to us, and enabled us to get the ship again in order. She had not indeed suffered much in her hull, but the rigging required considerable repairs. The wind fell gradually, and now came from the west; and as soon as the sails could be set, which was not until noon, I steered to the northward. About six o'clock we saw land bearing W. N. W. distant nearly forty-five miles. It was calm throughout the night, but the swell had not quite subsided, and drove us rather to the eastward. About nine the next morning we perceived the land bearing due west; and as we only neared it very slowly, it was still distant at noon about thirty-six miles, stretching from N. W. 30° to N. W. 84°. Our latitude was at this time by observation 31° 42′, and the longitude 227° 43′ 30″. At half past two we were nearly twenty miles from the land, but it now fell almost calm and continued so until ten o'clock at night, and we moved but very slowly for-

wards until rather a heavy squall brought us within a few miles of the land. The variation of the compass was found to be here 3° 1′ W.

The country in general appeared to be very mountainous; and the hills, among which were some very lofty peaks, were in double and sometimes in three and four rows. To the N. E. the land terminated in a lofty promontory, bearing about four o'clock N. W. 18°. This promontory, which, in honor of the companion of Behring, I called Cape Tschirikoff, lies in 32° 14′ 15″ N. and 228° 18′ 30″ W. We saw, at the same time, to the N. N. W. a bay, the eastern point of which is formed by a double promontory that at first, though I was in all probability mistaken, appeared to me to be an island. To this headland I gave the name of Cape Cochrane, after Admiral Cochrane of the English navy, under whose direction I spent three of the most profitable years of my service: it may easily be known by its form, but more particularly by a round conical hill which lies behind it, and from whence the land suddenly falls away to the eastward; but the surest mark of this part of the coast is a high peak parallel with Cape Cochrane. From this cape lying by observation in latitude 31° 51′ 00″ and longitude 228° 33′ 30″; the coast of the island of Kiusiu* assumes quite a southerly direction, which indeed it does from Cape Tschirikoff. The land to the northward of Cape Cochrane is much higher than to the southward: but the coast in this latter direction is distinguishable by a high hill with a flat summit, and still farther to the south, by three hills of moderate height, and at a short

* There was no doubt that the land we saw was part of the island of Kiusiu.

distance from each other. At sun-set we were about fifteen miles from the land, which now afforded us a clear and beautiful prospect. It trended from the N. W. 15° to S. W. 65° where a pretty lofty promontory bounded our view. In the west we saw a very conspicuous land, stretching for about ten miles from north to south, and having quite the appearance of a long narrow island; although this was my opinion as well as that of many persons on board, it is equally probable that it was connected with the main. The northern point of this headland was in 31° 48′, its southern point in latitude 31° 38′ and longitude 228° 30′.

About ten o'clock a gentle breeze sprang up at E. N. E. and we steered under easy sail to the south-east. At four the next morning it blew fresh from N. by E. and I now directed my course to the land. Although the ship had been driven by a strong current far to the southward, we were, nevertheless, at day break in such a situation that we could combine our bearings with those of yesterday. The cape we had seen yesterday evening bearing W. S. W. now bore N. W. 37°, projecting very much to the S. E. and apparently of considerable height. This promontory I called D'Anville, after the celebrated French geographer, to whom this science is infinitely indebted; and whom the eloquent Gibbon calls the prince of geographers, although none have hitherto thought of introducing his name in their charts. From Cape D'Anville, which is by our observations in latitude 31° 27′ 30″, and longitude 228° 32′ 45″, the coast trends rather to the westward, till it reaches another point which appeared to me to be an island, and

forms the north-east extreme of a great bay that we perceived about seven o'clock. As this bay, as far as the eye could reach, appeared to be perfectly clear, and as I believed at that time in the existence of the island of Likeo, I expected to find here the passage, which, according to Arrowsmith's charts, leads between that island and Tenegasima.* With regard to the land to the S. W. of this great bay, I had no kind of doubt of its being the island of Likeo; and the perfect agreement in respect to their latitude at that time, fully persuaded me that I was right in my conjectures. During my stay at Nangasaky, however, I convinced myself through the Japanese, that the land that forms the north side of the straits of Van Diemen is not Likeo, but the province of Satzuma, as it is denominated in D'Anville's charts. I long had suspected some mistake upon this head, and asked almost all the interpreters of the Dutch factory about it. The well known situation of Volcano island; our vicinity to this coast, which had been observed;† and the positive assurance of the Japanese, of there being no large island near Japan called Likeo, have convinced me of the non-existence of this island, which the English charts describe to the north, and the French to the southward of the straits of Van Diemen; and that this name belongs only to the

* In a later edition of Arrowsmith's large chart of the South Sea, in nine sheets, the straits of Van Diemen, and the islands of Tenegasima and Likeo are quite omitted. Arrowsmith has only preserved the island of Tanao-sima in 30° 43′ N. and 131° 08′ E.

† From the moment in which we were first seen, that is to say, from the 3d October, boats were daily sent to the governor of Nangasaky, so that the Japanese were perfectly acquainted with our route.

group of which the largest lies in nearly 27° of latitude. According to these inquiries I have called the southern part of Kiusiu, Satzuma, omitting altogether the name of Likeo. The Japanese assert that the king of the Likeo islands, whose residence is in the large island bearing this name, and whom they describe as very rich and powerful, is dependent on the Emperor of Japan; that whenever a new emperor ascends the throne, he is required to send an ambassador to Jeddo; and that these islands belong to the province of the Prince of Satzuma, whom, in case of any war, the king is expected to support with a powerful fleet. At the same time they do not deny that the kings of Likeo acknowledge a subjection to the emperors of China, and pay a tribute to both of them in order to preserve peace; for, according to the reports of the Japanese, the Likeors are of a goodnatured and gentle disposition, and great lovers of peace; and in this respect were compared by them to women. This asserted dependence of the Likeors on the Japanese, though to me very doubtful, and the little geographical knowledge of the latter, as well as their total ignorance in respect to the calculation of distances,* are perhaps the reason why the Japanese have placed the Likeo islands in their charts much nearer to their coast than they really are. The first Europeans who gave us charts of Japan, copied those of the natives with all their errors, and this has led modern geographers to confound some of the Likeo islands with the *islands of Jacono-sima and Tenega-sima, which lie opposite the*

* I did not meet with a single interpreter who could tell me accurately the distance from Satzuma to Likeo.

coast of Satzuma at a distance from twenty-five to thirty miles, and form the south shores of the straits of Van Diemen.

About eleven o'clock we had approached within fifteen miles of this supposed passage, where we now saw some small islands, and presently afterwards remarked that it was inclosed on all sides by the land. I conceived that any farther search for a passage between these islands (which we have since learnt does not exist) would be attended with a loss of time, particularly as the wind was not favourable to our entering the bay; and I feared that the well known jealousy of the Japanese, who have forbidden the Russians, as well as other nations, from approaching their coast any where else than at Nangasaky, might have been so offended at such an inland navigation, as to endanger the success of our embassy. I therefore gave up this attempt, and held my course about eleven o'clock W. by S. towards the south-east point of Satzuma. At this moment Cape D'Anville bore N. W. 6°, and the south-west point of the bay, which I have called Cape Nagaeff, in memory of the first Russian hydrographer, and which lies in 31° 15′ 15″ N. and 228° 49′ W. bore N. W. 60°. A very lofty mountain, the highest of any that we had seen upon the coast of Japan, bore N. W. 26° of us. The middle of this mountain, near to which were two others of nearly the same height, lies in 31° 41′ N. and 228° 48′ W.; this I have distinguished by the name of my friend Schubert, the celebrated astronomer.

The width of the bay, the proper name of which I was unable to learn, from Cape Nagaeff to the north-east point, bearing nearly N. E. and S. W. of each other, is at least ten miles, and

its depth fifteen; but although the water entirely changed its colour, we had no soundings with a line of 120 fathoms.

We had scarcely shaped our course to the south-east point of Satzuma when we saw land in the S. W. which I conceived to be the island of Tanao-sima, marked in Arrowsmith's chart as forming the south side of the straits of Van Diemen. The proper name of this island, as I learnt at Nangasaky, is Jaconosima, and it is very much visited by the people of that place on account of its timber. I was assured that all the planks we obtained there, with the exception of the camphire wood, were brought from thence: it is very low, and resembled, as we first caught sight of it, the island of Lavensaar in the Gulph of Finland. The tops of the trees only appeared above water, and it was not until we were a good way within the straits of Van Diemen, that we could see the whole of the island. It is entirely flat, and completely overgrown with wood, which gives it an agreeable appearance; is about eighteen miles long, and lies nearly N. and S., and its greatest breadth is about one third of its length. About the middle this width is diminished nearly half by two bays on the east and west sides, which makes it at a little distance look like two islands. Its northern extremity lies in latitude 30° 42′ 30″, and in longitude 229° 00′; the south point in 30° 24′ 00″ N.

Towards noon the south-east point of Satzuma bore nearly due W., distant about twenty miles. The latitude, which at this moment was observed with the greatest accuracy, was 31° 4′ 40″ N. and the longitude at the same time 228° 40′. Shortly after noon there appeared in the S. W., behind the island of

Jaconosima, and at a great distance, some very high mountainous land that seemed to be of a greater circumference. Captain Colnett, who sailed between the islands of Usasima and Kikiay, must have seen this island,* the name of which, as I am informed by the Japanese interpreters, is Tenegasima, the same as it bears in our chart. The middle of this island was in latitude 30° 23′ and longitude 229° 30′ 00″ W.

About two o'clock we had soundings with a line of seventy-five fathoms: grey sand, with black and yellow spots, and broken muscle shells. The wind now died gradually away, and we got into a ripple or partition of the water, which was occasioned by a change of the tide. It advanced quite in a direct line towards us, bringing a quantity of grass, pumice stone, broken pieces of wood and planks. The ship would not answer the helm, but drove to the northward towards the shore. About half past four the strength of the current had abated so much, that she again became manageable, and I shaped my course to the south-west, parallel with the coast. A small, but lofty island, with a broad double summit, immediately recognized by us to be Volcano island, soon hove in sight, and some small islands, as well as the south end of Satzuma, were visible from the mast head. As the night was clear and the wind moderate, I did not bring-to, but continued my course under very easy sail. Fires were lighted upon Satzuma, and in different places on Jaconosima, so that with very little attention our navigation during the night was perfectly safe. The lead was

* Arrowsmith has omitted the islands Usa-sima and Kikiay, and those which Colnett probably called Pinnacle islands, in his new chart.

hove every half hour, and showed a depth of from fifty to sixty fathoms, over a ground of the same description as we had found at the entrance of the straits. The number of fires kept burning, served probably as signals; the appearance of a large European ship no doubt causing a great sensation among so timid a people. At day-break we saw a small island, which I have named Seriphos. It was merely a naked rock, about half a mile in diameter. Well to the westward of this island, at the distance of about twenty-four miles, is Volcano island, with another very near it to the eastward, of almost the same height, that obtained the name of Apollo. A fourth, fifteen miles south of Volcano, and about six miles in circumference, I called Julie. Farther to the westward we saw another exceeding all those which I have mentioned in point of size, and to which I gave the name of St. Claire in our chart. As I had seen in some charts an island of this name on the south-east coast of Japan,* I conceived it useful to distinguish the other islands which lie in the straits of Van Diemen with names, as notwithstanding all my endeavours in Nangasaky, I was unable to learn them properly in Japanese. The following is the longitude and latitude of the five above-mentioned, determined by astronomical observations.

Volcano island -	30° 43′ 00″ N.	229° 43′ 20″ W.
Seriphos - - -	30° 43′ 30″ N.	229° 15′ 30″ W.
Apollo - - - -	30° 43′ 45″ N.	229° 36′ 00″ W.
Julie - - - -	30° 27′ 00″ N.	229° 46′ 30″ W.
St. Claire - - -	30° 45′ 15″ N.	229° 05′ 45″ W.

* The island of St. Claire is also omitted in Arrowsmith's new chart.

At seven in the morning the south end of Satzuma bore nearly N. This cape, which lies in latitude 30° 56′ 45″ and longitude 229° 23′ 30″, consists of a broken mass of rocks, stretching out to the southward, near which there are two smaller rocks, one pointed, and the other of a circular form. This promontory I have called Cape Tschitschagoff, after the meritorious admiral of that name, who has acquired so honourable a place in the annals of Russian navigation, by his voyage to the north pole, and his victories over the Swedish fleet.

We had scarce weathered Cape Tschitschagoff, the southern point of Satzuma, when we perceived a lofty mountain of a conical form, the base of which was quite at the water's edge; I called it, after our astronomer, Peak Horner, and it lies in latitude 31° 9′ 30″ and longitude 229° 32′ 00″. The situation of this remarkable mountain was ascertained with the greatest precision by Dr. Horner; and this and *Volcano* island form two unerring marks of the straits of *Van Diemen*. In the N. E. a large bay opened upon us, extending far to the northward and having apparently a passage in that direction, though it probably is bounded there. This bay, of which Cape Tschitschagoff forms the south-east point, and Peak Horner the north-west, had a very picturesque appearance, a number of small islands lying in irregular shapes on the north-west side of it, two of which, forming a large bow in appearance, were very remarkable. The whole bay, excepting to the north, is surrounded by high mountains, whose summits were covered with the most beautiful verdure. Peak Horner stands on a point of land, and seemed to rise out of the sea, adding very much to the picturesque appearance of the country.

I now steered N. W. ½ W. towards a point of land forming, on the other side of the above mentioned peak, another very beautiful bay, and divided into two parts by the land to the northward projecting very far forward. The western bay, where there was a small town, was surrounded by a charming valley, divided into large fields and regular plantations of large trees. A high pointed needle rock stands at a short distance from the shore, and forms the entrance to this small bay, in which some vessels were lying at anchor. Behind the valley and far inland, was a mountain of a regular and unbroken appearance, from the middle of which arose a lofty peak. Our latitude at noon was by observation 31° 9′ 17″ N. and agreed very nearly with that of our reckoning; a proof that the currents, which are so strong as to render the ship, when there is but little wind, quite ungovernable, proceed from a regular change of ebb and flood. By our observations it is high water in the straits of Van Diemen at nine o'clock at new and full moon, the flood setting from the south-west, the ebb from north-east. Until seven o'clock we had alternately a perfect calm, and a very moderate breeze, it was therefore nine o'clock before we could weather a large promontory, after passing which, the coast of Satzuma takes a north-west direction.

The south-east side of Satzuma from its south-east extremity, takes nearly a north-east by north and south-west by south direction. Behind this extremity there is a bay to the westward: all the shore was apparently formed of craggy rocks, and I very much doubt whether there is any anchoring place on this side; the land is mountainous, but not particularly distinguishable on account of its height. On the east side of Cape Tschitschagoff

the coast assumes a much more beautiful appearance, the country descending gradually to the shore, where there are several small bays, and this part, that seemed to be the most fruitful, is probably the best inhabited, of which the number of fires kindled along the coast during the night, and the quantity of boats we saw rowing and sailing about, afforded a sufficient demonstration. The distance from Cape Nagaeff to Cape Tschitschagoff, that is to say, from the east to the southernmost point, is thirty-four miles: from this latter point the direction of the coast to Peak Horner is N. W. by N.; and from this to another forming the south-west point, nearly W.: and it is here the bay which I have mentioned is situated. This part of Satzuma is particularly beautiful; and as we sailed along at a very trifling distance from the land, we had a distinct and perfect view of the various picturesque situations that rapidly succeed each other. The whole country consists of high pointed hills, at one time appearing in the form of pyramids, at others of a globular or conical form, and seeming as it were under the protection of some neighbouring mountain, such as Peak Horner, or another lying north by west of it, and even a third farther inland. Liberal as nature has been in the adornment of these parts, the industry of the Japanese seems not a little to have contributed to their beauty; for nothing indeed can equal the extrordinary degree of cultivation every where apparent. That all the vallies upon this coast should be most carefully cultivated would not so much have surprised us, as in the countries of Europe, where agriculture is not despised, it is seldom that any piece of land is left neglected; but we here found not only the mountains covered to their very summits with the most beautiful fields and plantations, but even the very rocks by the sea

side, forming a striking as well as singular contrast, by the opposition of their dark, grey, and blue colour to that of the most lively verdure. Another object that excited our astonishment was an alley of high trees, stretching over hill and dale along the coast, as far as the eye could reach, with arbours at certain distances, probably for the weary traveller, for whom these must have been constructed, to rest himself in, an attention which cannot well be exceeded. These alleys are not uncommon in Japan, for we saw a similar one in the vicinity of Nangasaky, and another in the island of Meac-sima.

From the south-west point the direction of the coast is N. W. by N. ending in a large promontory, that forms the western extremity of Satzuma. This promontory, which I have called Cape Tschesma, in memory of the famous and total destruction of the Turkish by the Russian fleet, lies in 31° 24′ 00″ N. and 229° 58′ 00″ W. There are several projecting points of land forming small bights, from which reefs of rocks run a short distance into the sea, between these two promontories. We sailed by in the night and could not therefore take any distinct survey of Cape Tschesma, although we saw this promontory sufficiently distinct the next morning to be able to ascertain its position with tolerable accuracy. From Cape Tschesma, the coast again runs due east, forming to the north a large bay, that lies nearly at the back of the one we had seen the day before on the east side. Had I not fully persuaded myself during my stay at Nangasaky, that Satzuma formed part of Kiusiu, I should have supposed a communication between these two bays; but there can be no doubt, though I did not examine either of them, that all this part joins to the

main land. The greatest length of Satzuma, namely, from Cape Satzuma to Cape Tschesma, which lie nearly east and west of each other, is sixty miles, and its extreme width from Cape Tschitschagoff to the farthest land we were able to follow with the eye to the northward, is thirty-six miles; very nearly the dimensions of the island of Likeo, as it is laid down in Arrowsmith's chart.

A short time before sun-set on the 5th October, as we sailed parallel with the south-west coast of Satzuma, we saw in the north-west a high land looking like an island, which we afterwards learnt was the island of Meac-sima. I steered during the night towards it under easy sail, and we were at day-break about six miles from its south-west extremity: Cape Tschesma at the time bearing E. S. E. eighteen miles distant. We discovered besides two small islands, one of which was merely a rock; but the other was of a circular form, and about three miles in circumference. These two rocky islands, which I have called Symplegades, lie in a north-east and south-west direction of each other, and are separated by a channel about six miles wide. The north-easternmost, in latitude 31° 30′, and longitude 230° 18′ 20″, lies S. E. 20° distant about six miles from the south-west point of Meac-sima. The one to the south-westward lies in latitude 31° 26′, and longitude 230° 22′ 30″. To the north-east we had seen a large promontory that, together with Cape Tschesma formed the bay on the west side of Satzuma, of which I have already spoken, and which I shall call Satzuma bay. The distance between these two promontories, which lie north and south of each other, is eighteen miles. In this bay there appeared to be se-

veral smaller ones, where there must be excellent harbours, as even the large one is nearly enclosed by the land. Here, too, from what I was able to learn from the Japanese interpreters, is the chief harbour of the province, and the residence of the Prince of Satzuma. This harbour, whose name the interpreters could not tell me, is probably Cango-sima, where in 1542, according to Charlevoix, the three Portugueze, Antonio Mota, Francisco Zeimota, and Antonio Pexoti, landed, having been driven in a gale upon the coast of Satzuma, and from which St. Francisco Xavier sailed in 1550 to Firando.

The land that surrounds Satzuma bay is very mountainous; and a high land is particularly distinguishable to the northward, upon which runs a line of mountains of a wavy form, having a high peak in the center of them, the same that we saw the day before. To the north-westward of these there is a double peak, adjoining to a table mountain, from whence a constant smoke ascends. This, from its description, seems to be the Unga mountain, so remarkable during the persecution of the Christians in Japan; for it was to this place that the unfortunate enthusiasts, to whom the Jesuits had imparted their religious delirium, were brought, and afterwards plunged, if they persisted in not returning to the religion of their forefathers, into the crater of the volcano. Its situation is in latitude 31° 43′, and longitude 229° 46′. The promontory which forms the north point of Satzuma I have called Cape Kagul, in memory of the glorious victory obtained by Field Marshal Romanzow over a very superior Turkish army. It lies in latitude 31° 42′ 20″, and longitude 229° 53′. Between Cape Kagul and the north-east side of Meac-sima there appeared a passage,

seemingly more than ten miles wide, and I now bent my course towards it. As we approached it, we perceived that the coast from Cape Kagul first assumes quite a northerly direction, but afterwards runs more to the westward; and that from the north-east point of Meac-sima a number of small rocky islands extend in the same direction with the coast, viz. N. E. and S. W. forming a reef as far as the eye can reach. Among these rocks, which are almost all white, there was one particularly remarkable, in the form of a tower, having two high trees on the top of it. Our hopes of finding a passage here were considerably diminished; but so long as the wind, that blew pretty fresh from the south-east, should hold, I was resolved not to give up my purpose of examining this entrance more closely. About noon the wind fell and became changeable, and at two o'clock, as we could no longer expect to obtain before night a thorough knowledge of this part, and must consequently be obliged to wait for the next morning, I gave up this intention, and held my course to the south in order to weather the south-west point of the island. At this time our distance from its north-east extremity was three miles, and we had soundings with a line of forty fathoms on a bottom of clay with sand and coral. We now for the second time sailed along the coast, and had therefore the best possible opportunity of surveying this side of the island with accuracy.

Meac-sima is very incorrectly placed in all the charts, as well with regard to its position, as the direction in which it lies. In some it does not exist at all, in others it is represented as a small island at a distance of seventy-five miles from the

coast of Japan. We found it to consist of several small islands lying so close to each other, that the different channels that divide them can only be seen at a very short distance. These channels must form excellent ports for small vessels, at least if we may judge from the number of them that were sailing from all directions towards the island, and immediately disappeared either in the channels themselves or behind the rocks. This whole island is formed of rocks, but the industry of the Japanese is apparent even here, for green fields and plantations of trees are to be seen on all sides, and, as in Satzuma, there is a long alley of trees that is carried over some pretty lofty hills. The greatest length of this island in a north-east and south-west direction is eighteen miles, without reckoning the small ones and rocks that run out in a straight line from the north-east point as far as the eye can reach. Its width bears no proportion to its length. The south-west part, the widest half of the island, is not more than four miles. The south-west point lies in latitude 31° 35′ 30″, and longitude 230° 20′, the north-east point in 31° 49′ and 230° 9′. Comparing the latitude of the center 31° 43′ with that of the island of Meac-sima as laid down in Arrowsmith's charts, no difference appears between them, and but very little in the longitude. But its size is there diminished by at least a quarter, and instead of the seventy-five miles, at which distance it is placed in that chart from the coast of Japan, there is only a narrow passage, at the most, of five miles between the coast and the reef of rocks that join the island. The Dutch, who every year sail by Meac-sima, have probably placed it more correctly in their charts; but as these are never imparted to the world, the geographers of Europe will derive the first accurate knowledge of

the coast of Japan from a nation from whom they perhaps the least expected it.

During the whole day we were surrounded by a number of small Japanese vessels that sailed about us in different directions, never approaching near enough to speak with us, but on the contrary most carefully avoiding us. We made signs to them and hailed them by their countrymen, but all in vain. As they are forbidden the least intercourse with strangers, and on this account dare not give any answer even to the most simple question; we would not bring them into danger by calling them any longer, although we could not help wondering at the absolute dependence and great self-denial of these people.

A little before dark we perceived a shelf rising from a group of black pointed rocks, which lies in latitude 31° 42′ 20″, and longitude 230° 26′ 30″, 7 miles N. W. 39° from the S. W. point of Meac-sima. These I called the rocks of Nadeshda. At day-break we saw land to the northward, and recognised it to be the Gotto islands, and two small rocky islands, one of which is flat, but the other lying about one mile to the southward of it, and about two miles in circumference, is pretty high and has two hills upon it. These are probably the same that are called Asses-ears in Arrowsmith's charts. They lie in 32° 2′ 30″ N. and 231° 23′ 30″ W.; from Cape Gotto S. W. 9°, 33 miles, and from the south-west point of Meac-sima N. W. 65°, 58 miles. The variation of the compass we this day found to be 55′ W.

About noon our latitude by observation was 32° 22′ 3″, Cape Gotto at that time bearing N. W. 39°, and the northern extremity of this chain of islands N. E. 14°. At four o'clock in the

afternoon we were three miles nearer to the shore, and as the wind was moderate and the current ran strong to the north-east, I put the ship about. We saw too little of the Gotto islands to enable me to say any thing satisfactory with regard to them, and, upon our departure next year from Nangasaky, the stormy and misty weather prevented our seeing them at all: Cape Gotto, the south-western point of these, as indeed of all the Japanese islands, was however determined very correctly; it lies in latitude 32° 34′ 50″, and longitude 231° 16′ 00″. The Gotto islands form, to all appearance, a large, connected, and very mountainous country, stretching from W. S. W. to E. N. E. and in front of which there are a number of small islands all highly cultivated. In no place is there a spot to be seen, that is not covered with the most beautiful verdure.* These small islands are connected with rocks, among which, one of considerable size lying in latitude 32° 34′ is distinguishable, as it appears to have been split into three parts, and I therefore called it treble-cleft rock.

I now steered with a moderate north-east wind, which did not freshen till towards the evening, under all sail E. S. E. The wind shifted in the course of the night, allowing us to lay N. E.: at day-break we saw that part of Kiusiu where Nangasaky is situated, right a-head of us. In the S. we perceived two high promontories, the southernmost in 32° 30′ N. and 230° 11′ W. The northernmost one, projecting more to the west, is very high, and formed by a double mountain, and lies in latitude

* In the Japanese charts they form a chain of islands, reaching to the island of Iky, of which the largest lies most to the S. W.

32° 35′ 10″, and longitude 230° 17′ 30″. This probably is Cape Nomo, described in some old charts as the southernmost point of the land to which Nangasaky belongs, and forming, with Cape Seurote, the two points of a bay in which that town is situated; this I have called Kiusiu bay, after the name of the whole island. It is full of islands and rocks, and the coast of Cape Nomo, until you get within the entrance of the bay, is very dangerous; as we did not find the harbour so much to the south, viz. 32° 32′ N. as we expected it to be from the general plans, we sailed parallel with the coast at a short distance from these rocks, of which we saw several on the northern coast. Outside of the northern point of the bay of Kiusiu, were some islands which are probably a continuation of the Gottos, and form a chain stretching away to the N. E.; from Cape Nomo to the entrance of Nangasaky there were several small bights behind the rocks, bordered by the most beautiful vallies. The land in general bore decided proofs of the most diligent cultivation, affording a beautiful prospect, improved by the very long avenues of trees: behind the vallies bordering on the coast, the land to the northward formed itself into a chain of mountains. About noon we were by observation in 32° 36′ 40″ N. but still to the southward of Nangasaky. A boat now came along side, having a Japanese officer on board, which, after putting some questions to us, immediately returned; nearly two hours after another boat come to us, and continued with us until about half past five, when we came to an anchor at the entrance of Nangasaky bay in thirty-three fathoms water, over a bottom of fine grey sand, the north-west end of the island of Iwo-sima bearing S. W. 13°, Papenberg S. E. 74°, Cape Facunda N. E. 55°, our distance from the nearest land being about three quarters of a mile.

CHAPTER XII.

STAY AT JAPAN.

Reception of the Russians at Nangasaky—Our Disappointment—Mistrustful Steps of the Japanese Government—The Ambassador quits the Ship—Description of Megasaky, the Ambassador's Residence—The Nadeshda is carried into the Inner Harbour—Departure of a Chinese Fleet, and of two Dutch Ships—Some Account of the Chinese Commerce with Japan—Observations of an Eclipse of the Moon—Remarks on the Astronomical Knowledge of the Japanese—Unsuccessful Attempt of one of the Japanese brought from Russia to kill himself—Probable Reasons for this Attempt—Arrival of a Damio, or Nobleman, from Jeddo—The Ambassador's Audience with this Commissioner—Conclusion of all Diplomatic Business—Permission to return to Kamtschatka—The Nadeshda quits Nangasaky.

EVERY one knows the insulting jealousy which is observed towards strangers in Japan; we had no right to expect a more favorable treatment than other nations; yet, as we had an ambassador on board, who was sent merely with assurances of friendship, by the monarch of a powerful empire, bordering upon these people so suspicious in their politics, we hoped not to be received unfavorably. We expected that many liberties would be allowed us, which would in some degree alleviate our stay here, and render less irksome our long inactivity, (for we calculated upon spending at least six months here,) by the opportunity we should have of acquiring some information on this little known country, upon which the only Europeans competent to impart any knowledge concerning it, have, during the last two hundred years, made a rule not to publish any thing. Within this period, indeed, two travellers

have published their remarks upon Japan; and although both of them, comparatively speaking, were but a short time in this country, their accounts are undoubtedly important, being the only ones since the extirpation of the Christians, from which period the accounts of the Jesuits cease. They were, however, neither of them Dutch; so that Europe owes nothing to this nation, with respect to a knowledge of the Japanese empire. Does this proceed from fear that such a liberty would be severely reprehended by the government of Japan? or does it originate in indolence or policy? The first reason alone could exculpate them, if it were known that this government had disapproved of the writings of Kämpfer and Thunberg, which are well known to the Dutch interpreters, the spies of the Japanese government; and that they had expressly forbidden the Dutch to write any thing upon this government. But this is not the case. They have never even published a decent map of the situation of Firando and Nangasaky, Kämpfer's copy of a bad Japanese plan being the only one that is known; nor have we learnt from them the situation of the islands in the vicinity of Nangasaky, much less of those between this place and Formosa, parts which are yearly visited by two Dutch ships. The Japanese could not possibly consider it as a crime, that they should make known correctly the situation of these places, and I cannot help attributing this reserve of the Dutch to a ridiculous, mean, and at all events a very useless policy, contrary to the spirit of a philosophical age, and unbecoming a republican government. Has the trade of England suffered at all by the liberality of her government, or has that of the Dutch gained any thing by their disgusting secrecy? The state of English and Dutch commerce is too well known to every one to render it necessary that I should carry the comparison farther.

The reader will pardon me this involuntary digression; I now return to our reception at Nangasaky.

Although we certainly expected to be allowed more liberty than the Dutch enjoy here, we found ourselves greatly mistaken. This trifling freedom, which can only be called so when compared with our confined state on board the ship, and which appeared to us at first so despicable, that we should have rejected it with scorn, if it had been offered to us on condition that we should demand no more; even this little was entirely denied us, and the time of our stay here was literally a confinement, from which the ambassador was no more exempted, than the meanest sailor in the ship. It will therefore easily be seen, how impossible it was for those who continued on board, to obtain even the slightest information; the Dutch interpreters, the only sources from whence this was to be derived, not daring to approach the ship during the ambassador's stay on shore.* The reader must not therefore expect any satisfactory account of Japan from me, although we continued above six months there, as I can only relate, in the order in which they occurred, those circumstances which in some measure tended to break the monotony of our situation. The greater part of these are indeed of no importance; but I do not think it right to omit them, not only because every thing relating to a country so little known as this is, must possess a certain degree of interest, but as some general inferences may be drawn from a true, though dry and unentertaining narrative of facts.

* Only some of the lowest of the class of interpreters came on board to remove the presents, and unload the ship's provisions.

A short account of our confinement, and of the mistrustful conduct in general of the Japanese, without omitting such trifling favours as were shown to our ambassador, and which were entirely unprecedented in Japan, may therefore not be superfluous.

The first great proof of their jealousy was evinced in their taking from us all our powder and fire-arms, even to the fowling pieces belonging to the officers, among which were some of considerable value; and it was not until after four months' constant entreaties and representations that these latter were returned to them in order to be cleaned, though many of them were entirely destroyed by the time they were restored. The officers were indeed allowed to retain their swords, a favour which was never shown to the Dutch, and the soldiers were permitted to keep their musquets and bayonets. This last the Dutch have never been in a condition to demand, since they have always had the precaution not to show themselves here with a similar military attendance; but what really astonished me was, that the ambassador was not only allowed to carry his guard on shore with him, but that these were even permitted to retain their fire-arms. This favour was indeed granted to him with great reluctance, and the interpreters endeavoured, during several days, to prevail on him to yield up this point. They represented to him that it was not only against the laws of the country, but that it would shock the people to see armed soldiers of another nation in their country; that such a case had hitherto never occurred, and that it would be dangerous to comply with the demand; but when they found that these reasons could not induce the ambassador to forego his guard,

they strove to prevail on him to take only half the number on shore, but in this too he would not give way. That they should not allow the armed soldiers of a foreign nation to land in their country was perhaps the most pardonable of their pretensions; for even in the most enlightened countries of Europe this practice is unknown, and no ambassador has hitherto considered it as an affront to enter a foreign country without soldiers. The case was however too important for the governor to decide upon; and as a whole month was spent in negotiating it before the ambassador was allowed to land, it is most probable that a courier was sent on this account to Jeddo or Miaco for instructions.

After this small triumph over the Japanese, I must return to the insults they obliged us to submit to in the full extent of the word. We were not only forbidden to go on shore, but not even allowed to row about within a short distance of the ship, nor was it until after a six weeks' negotiation that a place was granted us, at a trifling distance, as a walk, and this only in consideration of the pretended illness of the ambassador. This place was close to the shore in a confined bay and was shut in on the land side by a high wall of bamboos; and although its whole length did not exceed an hundred paces, and its width at the most was forty, there were two watch-houses erected in its immediate vicinity. One single tree, but not a blade of grass, adorned this promenade, which was entirely upon a rocky ground. This place of course could not answer its intended purpose, nor was it used as such; but it was of great advantage for our astronomical observations which the Japanese did not in any way attempt to disturb. As soon as any boat put off

from the ship, for Kibatsch, for so this promenade was called, a fleet of ten or fifteen vessels immediately put themselves in motion, surrounding the boat on all sides, and in this same manner it was conducted back again.

The acquaintance which I had formed on the first day of our arrival with the captains of the Dutch ships, made a continuation of our intercourse very desirable, but I was never allowed to visit them, nor was any Dutchman permitted to come on board our ship. The barbarous intolerance of the Japanese government even went so far, as to forbid our forwarding letters by the ships going to Batavia, thus depriving us of the pleasure of sending to our families an account of our welfare. The ambassador alone was allowed to transmit a report to the emperor, but he was obliged to content himself with merely giving a short account of our passage from Kamtschatka to Nangasaky, and to acquaint his Majesty with the welfare of all persons on board his ship. This letter to the emperor was to be translated by the interpreters into Dutch, and a copy of the original left with the governors, written with such accuracy that every line was to terminate with the same letter as the original. This copy was delivered to the governor, and the original, after they had been compared together, was sent on board by two of his secretaries, in whose presence it was sealed. When the Dutch ships sailed we were ordered upon no account to send a boat off to them: and when I wished Captains Musquetier and Belmark a happy voyage, as they passed by me, and inquired after their health, the only answer I received was a sign with their speaking trumpet; for which the chief of the Dutch factory apologized in a letter to the ambassador, saying that the cap-

tains had been most positively forbidden to utter the least sound in answer to our questions. It is impossible to find words capable of expressing how shameful and barbarous such a conduct appears; and how much it is to be regretted that an enlightened European nation, owing its political existence to a love of freedom, and which has acquired celebrity by great actions, should so far debase itself from a desire of gain as to attend with submission and devotion to the hateful commands of a set of slaves. It is shocking, beyond description, to see brave men for several minutes in the most abject position before a banjos, who frequently belongs to the lowest of the people, and who does not return, even with a nod, the mark of respect which is paid to him.

When the ambassador at length received permission to land, a considerable building was appointed for his residence: but the seven towers of Constantinople are hardly so well guarded as our Megasaky, for this was the name of the Russian Dezima.* The house was situated upon a neck of land so near the sea, that on the south and east sides the water at high tide came close under the windows. When I say windows, indeed, I make use of an improper expression; for this word can scarcely apply to a square space about a foot wide, provided with a double lattice work, and which therefore admitted but very little light into the room. A high bamboo fence surrounded the whole building, not only towards the land, but even on the sea-face in spite of the waves; the protection of which the

* Dezima is the name of the small island upon which the Dutch factory is situated.

Japanese did not seem to consider sufficient. Besides these there were two rows of bamboo canes carried from the door down to the sea, as far as the tide ebbed; in order, that when the boats came from the ships they might only land between these canes, a precaution which scarcely could answer any one purpose. A large gate with double locks formed the entrance from the water-side. An officer, whose station was near the ship, had the keys of the outer locks, and another, who lived in Megasaky, those of the inside; and when any boat went on shore it was necessary that the keeper of the outward keys should accompany it to open his side, after which the inside was unlocked; and in like manner, when any one on shore was desirous of going to the ship, the porter of Megasaky opened the inside, when the vessel on board of which was the keeper of the outer keys, had to repair to the house to perform the same duty. Besides this precaution the gates were never left open upwards of five minutes; and though they sometimes knew that the persons would return immediately, the porter would rather take the trouble of locking and unlocking the gates again, than leave them open during this length of time. The land-side was guarded with a similar attention:—a strong locked gate being the boundary of a very small yard attached to the ambassador's house. As we had warehouses appropriated to us on the other side of this gate, the watchmen found the locking and opening too tiresome, and it was at last left entirely open; but the second yard in front of these warehouses was surrounded by a row of guardhouses. Twelve officers and their men relieved each other daily in this duty, and three other entirely new buildings were run up, to serve as the residence of other officers, whose only employment must have been to keep a watchful look out upon

us and upon their own people. At short intervals, on the way to the town, were gates, which were not only locked, but guarded. During the latter part of our stay the two first were indeed left open, but the guards never quitted them for a moment. They counted always the number of persons who came on shore, and the boat was never allowed to return without a similar number; and if any officer of the ship wished to pass the night in Megasaky, one of the persons residing on shore was obliged to go back in his stead; and in like manner, when any officer belonging to the ambassador's suite was desirous of sleeping on board, some sailor had to fill his place on shore: for the appointed number of persons residing there was neither to be increased nor diminished, nor was any attention paid to their quality in this respect, but only to their numbers.

As all the ship's boats stood in need of repairs, and I wished to put a deck upon the long boat and to copper her bottom, I requested to be allowed a place where we might haul them up on shore. Such a place was certainly granted to us; but so narrow and confined, that it was impossible to work at high water, and it was entirely surrounded with bamboos like Kibatsch, and two boats kept guard constantly while the carpenters were at work. Nobody was allowed to take the least walk, and as they refused us a place to erect our observatory, we could not avail ourselves of the sight of the heavens, the only object which their bamboos could not conceal from us.* We were not allowed to pass the night in Kibatsch, so that no instrument could be erected there, and all our observations were

* Even the mountains near Megasaky were surrounded with bamboos.

reduced to lunar ones with corresponding altitudes, by means of Hadley's sextants to ascertain the time.

If I here adduce a number of complaints of the mistrustful conduct of the Japanese, I cannot deny, on the other hand, that all my requests for such materials as were wanted for the repairs of the ship were most punctually acceded to. Besides this, the men were not only regularly provided with provisions, but always with the best which could be procured in Nangasaky, and in the quantity that I demanded. Before our departure they furnished us with 8000 pounds of biscuit, as well as every other kind of provision for two months, independent of the presents from the emperor to the crew, of which I shall speak hereafter; but we were never allowed to purchase any thing for money.

I now proceed to relate the circumstances which occurred from the time of our arrival to that of our departure.

At the end of the foregoing chapter I mentioned that we steered about four o'clock in the afternoon, in company with a Japanese boat, towards Nangasaky, and anchored about half past five at the entrance of the harbour. The same evening about ten o'clock we received the visit of several magistrates, or banjos, as they are called in Japan, from Nangasaky, who, without waiting for an invitation, walked at once into the cabin, and seated themselves on the carpet. Their servants placed a lanthorn in front of each of them, with a little box containing their smoking apparatus, and a vessel with coals to light their pipes, a very necessary article, in consc-

quence of the small size of the latter, which are emptied in four or five whiffs. The attendants of these great men consisted of about twenty persons, among whom were several *tolks*, or Japanese interpreters of the Dutch language, who questioned us very minutely upon the route we had taken since leaving Cronstadt; but particularly whether we had come through the straits of Corea, or along the east coast of Japan. They appeared pleased to learn that we had taken the latter course: and upon our departure from Japan we found that they were very jealous of the passage between Corea and the Japanese coast. The chief interpreter (whose name was Skiseyma) evinced some geographical knowledge, more at least than I expected to have met with from him. He knew that Teneriffe belonged to the Canary islands, and St. Catharine's to Brazil; yet I afterwards discovered, that he, as well as all the rest of his colleagues, were extremely ignorant of the geography of their own islands, or at all events pretended to be so. What, however, struck them very much, and they would scarcely give credit to, was, that our passage from Kamtschatka did not occupy more than a month. The Opperhoofd, or director of the Dutch factory, Myn Heer van Doeff, was also brought along with the banjos; but it was upwards of an hour before he was permitted to come on board. He had scarcely entered the cabin with his suite, consisting of his secretary, the two captains of the Dutch ships that were here, and a Baron Pabst, when they were all obliged to remain during several minutes in an inclined posture, which they were called upon to do, by a most insolent order from the interpreter: "*Myn Heer Opperhoofd, compliment voor de Opper Banjos!*" This submissive, and at the same time degrading attention, was not answered even by a nod. The compliments, as they are called, of the Dutch, are

something between the bows of the Europeans and Japanese, which last consist in throwing yourself flat on the ground, touching the earth with your head, and crouching backwards and forwards according as you may be spoken to by your superior. The Dutch would find great difficulty in casting themselves on the ground, owing to their clothes, and the pliability of the body required in these prostrations cannot be expected in people who are not brought up to it; but in order to imitate the Japanese customs as much as possible, the Dutchman must incline his body until it forms nearly the figure of a right angle; and what is much more difficult, he must remain in this position with his arms extended until he receives permission to stand again in his natural posture, which is not until after a lapse of some minutes. There must likewise be a difference in the compliments which the Dutch pay in Jeddo from those which we saw here; for we were told that previous to going there all persons belonging to the embassies receive instructions in bowing. The Japanese never ventured to propose this submission to us: upon their second visit, indeed, one of the interpreters, just after I had been addressed by the banjos, applied his hand gently to my back; but when this occasioned me to look earnestly at him, he withdrew, nor did they ever renew the attempt. About twelve o'clock they all retired, promising to return the next day and carry the ship higher up the harbour: about twenty vessels kept guard around her: their flags, upon which were painted the arms of the Prince of Fisen, shewing that they belonged to that prince, who, as we were informed, has an equal title with Prince Tschingodzin to the city of Nangasaky, and the surrounding country; and it was only the guards of these two princes, who relieved each other during our stay. The Prince of Omura must also have a share in.

the city, his officers being frequently on guard at the ambassador's; but in the harbour, we saw neither the flag of the Prince of Fisen, nor of Tschingodzin.

The extraordinary respect with which the interpreters spoke to the banjos gave us at first a very high idea of the character of these magistrates, whose rank we afterwards learnt was very inconsiderable; and that nothing but a commission from the governor imparts to them a temporary elevation. Whenever an interpreter has any thing to translate, he cast himself on his hands and knees before the banjos; and in this attitude, with his head hanging down, he made a hissing noise two or three times with his mouth, as if he were inhaling the air that surrounded his master.* He then reported to the banjos, in a tone of voice scarcely audible, and mixed with repeated sighings, in short, broken sentences, the conversation which in Dutch had lasted several minutes. If a Japanese was addressed by a banjos he crouched to him, bowed his head to the ground, repeating constantly the monosyllable Eh! eh! intended to signify, "I understand." The banjos always conducted themselves with great dignity; they never laughed, but occasionally shewed their satisfaction by a smile. As they seemed to me in other respects to possess some manners, I was very much struck by an indecent practice common to them, and in which they never checked themselves, although they must have been well aware of its impropriety, even if their own feelings did not tell them so, as the Dutch interpreters have not the same custom.

* This hissing noise, made by drawing in the breath suddenly between the teeth, is a general compliment among the nobility.

The clothing of the banjos, as well as of the interpreters, consisted of a short upper garment with very wide sleeves, and under this a complete gown reaching quite down to their feet, and fastened round the neck, and very similar to the female dress in Europe, except in being much narrower from the hips downwards, so as to render it extremely difficult for them to walk; indeed they never walk but when they are absolutely compelled to do so. This is the usual dress of all the Japanese; and the only difference between the clothes of the rich and of the poor is, that those of the former are made of silk, while the latter are clad in coarse woollen stuffs: the upper garment is generally black, but there are some of different colours, and the lower dress is mostly of mixed colours. Every one has his family arms worked into his clothes in different places, about the size of a half dollar, a practice usual to both sexes; and in this manner any person may be recognized, and the family to which he belongs easily ascertained. A young lady wears her father's arms until after her marriage, when she assumes those of her husband. The greatest mark of honour which a prince or a governor can confer upon any one, is to give him a cloak with his arms upon it, the person having such a one wearing his own arms upon his under dress; and the ambassador was frequently told how supreme a happiness would be conferred upon him, if the emperor was to present him with a garment bearing the imperial arms. The arms were generally worked into clothes made of Japanese stuffs, but they were sewed upon those made of Chinese stuffs. In the winter the Japanese wear five or six dresses one over the other; but I have never seen any of them in a cloth dress, or in any kind of furs, although the weather is very raw in the months of January and February. It is singular that they have no notion of clothing their feet;

their stockings, which cover only half of their legs, are made of woollen stuffs sewed together, and instead of shoes they merely wear soles made of straw, which they fasten to the great toe by a kind of loop; and which, as their floors are always covered with wadded mats, they take off the moment they enter a room. The upper classes are scarcely sensible of the want of better shoes, as they seldom walk, and sit throughout the day with their feet bent under them; but the poorer sort, who constitute perhaps nine-tenths of the whole population, must suffer very much from it during the winter months. The Japanese exposes his head in a similar manner; although he is half shorn he never strives to protect it by a parasol against the heat of twenty-five degrees, and he is equally regardless of one or two degrees of cold, and the most piercing north winds which prevail during the winter; nor do they ever use an umbrella in rainy weather. The hair is rubbed over with a very strong pomatum, by which it obtains a great polish, and is tied together on the top of the head, and made to terminate in a very small knot, forming a crooked line in front quite close to the forehead. The toilet of a Japanese must occupy a very considerable time, as they not only anoint and comb their hair, but shave their heads daily; this latter operation they never perform on their beards, but pluck out the hair with small pincers, that it may not grow again, and these and a metal looking-glass occupy the chief place in the pocket-book of every Japanese. They cannot be denied a great cleanliness of person, although they make no use of linen, without which we have no notion of such a quality; but this, as far as we saw, appears to be the ruling passion of the Japanese of every rank.

About four o'clock the next afternoon, a present, consisting of fish, rice, and fowls, was brought on board from the governor. The boat announced to us the visit of several principal characters, and we shortly after perceived a large vessel adorned with flags, which, accompanied by several others, was towed towards the ship amidst the continual sound of kettle drums. According to the report of the interpreters, they were the principal secretary to the governor, the treasurer, and the ottona or burgomaster of the city. The first seated themselves on the carpet, the latter on a chair on the right hand; but the Dutchmen who accompanied them, were to us the most agreeable part of the company; the conversation in particular of Captain Musquetier, who spoke English, French, and German, and appeared a very well informed officer, was extremely interesting to us, and it was with the greatest regret that I found myself prevented from keeping up an acquaintance with him, owing to the jealousy and suspicion of the Japanese.

The object of this visit of the banjos was to carry away the powder and arms belonging to the ship, and to remove her to the west side of Papenberg. They refused to carry her to the east side under the pretext, that the five Chinese junks which lay there, occupied the whole road. At midnight we weighed anchor, and were towed by about sixty boats to our new anchorage, which was nearly two miles and a half off. We could not but admire the order with which this was effected: the flotilla divided itself into five lines of twelve or eighteen boats each, which kept their places so regularly, that they were not once broken; and notwithstanding the foul wind we advanced at the rate of two miles an hour. About four in the

morning we anchored in twenty-five fathoms water; and were instantly surrounded by thirty-two guard boats, which formed a circle round the ship, that no vessel was allowed to break through; and as the west side of Papenberg lies very much exposed, they were frequently compelled, whenever the wind freshened, to quit their post, which, however, they hastened to resume the moment the weather was again a little fair: and this has been the case two or three times a day. Some of these vessels carried the imperial flag, white, blue, white; but the greater part of them bore that of Fisino Kama-sama, or the Prince of Fisen; the large boats, which had a flush deck, and were covered with blue cloth, were distinguished by two peaks, the aftermost one being the mark of an officer. Besides these thirty-two boats, there were three others which remained in the vicinity of the ship, to receive our orders.

On the 12th October at four in the morning, the Chinese fleet got under sail. The construction of these junks is well known, and needs no description here; and we were witnesses to the unskilfulness and difficulty with which they hoisted their sails. The whole crew of the ship, apparently consisting of a hundred men, were at work for upwards of two hours, hoisting, with the most horrible noise, a single sail, an operation which they performed by means of a windlass. As soon as they got out of the bay, they set their topsails, which are of sailcloth; the three lower sails being, as is well known, made of mats. With this miserable apparatus, they can only sail during the most favorable monsoons; the most trifling storm that springs up against them, exposing them to the greatest danger. About noon the wind veered from N. E. to N. N. W., and although this was still fair

for them, they were obliged to return to their former anchorage. This happened to them a second time, but the third time the wind continued in the north-east, and they succeeded in getting to sea.

On the 11th, 13th, and 15th October, according to our reckoning, (which is one day later,) the Japanese celebrated a feast, which the Dutch interpreters called Kermes. It certainly is a very wise regulation of these people, not to continue their religious and national feasts on many successive days, but to have always a working day between them. By these means they are not much interrupted, and no work is discontinued. Feasts that last for several days, are equally injurious to the health and morals of the people, and are besides attended with a great loss of time; and a life of debauchery continued for three or four days, requires at least as many, and perhaps more, to restore that repose and tranquillity requisite in works that demand a clear and unembarrassed genius. The Japanese have no Sundays, and only very few holidays, of which these kermes and the feasts of the new year, are the principal ones.

On the 16th October, at about eleven o'clock, a banjos arrived with nearly an hundred tow-boats, to tow the ship to the east side of Papenberg, where we anchored at one o'clock in eighteen fathoms water, over a ground of thin clay. A small anchor was carried out to the south-east, that side being, according to the Japanese, safer than the north-west. We requested in vain to be towed into the inner harbour, in order to repair the ship which had suffered during the typhon, and, even before that, had sprung a leak. This was refused because

no permission had hitherto been received from Jeddo; and another most absurd reason was assigned, and which really seemed intended to ridicule us, viz. that a ship of war, having so great a man as an ambassador on board, could not lie in the same road with merchant-ships, such as were those of the Dutch; but that so soon as the latter should sail, it was intended that we should occupy their places.

On the 21st October an interpreter informed us, on the part of the governor, that as the two Dutch ships would proceed the next morning to Papenberg, we should not, upon any account, send a boat on board of them—at the same time he warned us not to return the Dutch salute, which was in honour of the imperial flag, not as a compliment to us. This caution was the more absurd as the governor had before ordered all our powder to be taken from us; and we had not an ounce on board. Besides it would have been utterly impossible for us to have returned the salute even if we had had the vanity to assume it to ourselves; for it consisted of at least 400 shots, and lasted, with short intervals, during six hours. The two ships anchored about a mile to the north-east of us; and the governor now sent us word, that as soon as the Dutch ships should put to sea he would allow us to occupy their place; but that we could not be admitted in the inner harbour, because no order to that effect had as yet been received from Jeddo. This promise he kept very punctually: the Dutch ships sailed on the 8th November, and on the 9th two banjos with their tow-boats came to us, and about six in the evening we anchored between the imperial batteries, which are on the south-east and north-west side of the entrance, in thirteen fathoms water, over

a bottom of green ooze. Our course was N. E. by E. ¼ E., the depth decreasing from eighteen to thirteen fathoms: a second anchor was carried out to the S. E. Our distance from the town was two miles.

I was extremely anxious to repair the injury the ship had received, as soon as possible; but as permission had not yet arrived for the ambassador to land with the presents, and the ship consequently could not be unloaded, the governor sent us a Chinese junk, on board of which he might remove with the presents, until the order from Jeddo, concerning his residence on shore, should be received. As the Chinese make use of wooden anchors we gave him one of our's for the greater security; but the cabin of the junk was so extremely bad that the ambassador would not consent to remove on board of her, declaring moreover that he must remain with the presents. The Chinese ship was therefore conveyed back to Nangasaky, and every thing remained as at first: we had however an opportunity of taking a nearer survey of this monster of naval architecture.

I now had the ship completely unrigged and sent the masts and yards to Kibatsch, which place we had not lost, though we had shifted our birth.

On the 24th November the ambassador was informed that, although the courier had not yet arrived from Jeddo, the governor was disposed to give him a house on shore at his own risk; demanding, however, that the soldiers should be left behind. That he did not consent to this I have already men-

tioned; the governor, at the same time, promised, that on the arrival of the courier from Jeddo, the ambassador should, without fail, have a larger building appropriated to him, although the house in Megasaky, of which the interpreters brought a plan, appeared to be very roomy.

It is extremely difficult to say what could induce the governors,* in whose conduct there was always an appearance of dignity and consequence, and who latterly gave us several proofs of their good disposition, to send us invariably false information. The promises, for instance, which they made us on our arrival, were so many empty words; and we learnt afterwards, what indeed we might have found in Kämpfer and Thunberg, that an answer may be received from Jeddo in thirty days, and that there have been examples of the journey there and back again to Nangasaky having been performed in twenty-one days. This the interpreters would never allow; but asserted that even when the roads were good, three months were requisite to go and return; and that at this time of the year a much longer period was necessary. They also told us that all the governor had acceded to was at his own risk: it was not, however, very probable that he should give up a house in the city to the ambassador, and large warehouses for the presents, without an express order to do so; and his anxious behaviour when he took upon himself to offer us a place in Kibatsch for a walk, sufficiently demonstrated his confined authority.

* Nangasaky has two governors, who relieve each other every six months. The second arrived a few days after we had reached Nangasaky, but the other was obliged to remain there, because we had come during the time of his authority.

Our arrival at Nangasaky was too important an event in Japan, for the court not to be informed of the most trifling circumstances concerning us; and I am convinced that after each visit of the interpreters to the ship, a courier was dispatched with an account of every word and gesture, which frequently were of a nature to increase the suspicion and injure the pride of this jealous and haughty people. We afterwards learned that the *Cubo*, or western Emperor, could determine nothing on this momentous occasion without consulting the *Dairy;* and that he had even sent an embassy concerning us, to ascertain the wishes of this important personage, whom the Japanese, although he has no executive authority, hold in the greatest veneration on account of his religious character. It is therefore very probable that the governor of Nangasaky received his instructions from Miaco, the residence of the *Dairy*, and not from Jeddo; and I am persuaded that the disputed point, with regard to the soldiers, could not be settled by the governor alone. A period of twenty-one days elapsed from the time that the question, with regard to them, was first agitated, until the entrance of the ambassador into Megasaky, in which time an answer might have been received from Jeddo, and consequently much sooner from Miaco.

On the 17th December the ambassador was conveyed on shore, for which purpose the Prince of Fisen sent his own boat, a vessel exceeding in size (being 120 feet long) and magnificence every thing that I had hitherto seen. The walls and ceilings of the numerous cabins were all varnished over in the handsomest manner; and the stairs, which were of red wood, were polished so highly as to have the appearance of lacker. The

decks were covered with mats and the most costly carpets; the curtains to the doors were of rich stuffs; and the whole boat was hung with double rows of silks of different colours. As the ambassador stepped on board, the Russian imperial standard was hoisted and waved together with the flag of the Prince of Fisen; and his guard, which accompanied him on board the vessel, took their place on the upper deck close to the standard. The imperial fortresses were ornamented with new flags and curtains, and manned by a number of Japanese troops in their best clothes: an innumerable fleet of boats surrounding the vessel and accompanying the ambassador to the city. So far the ceremony, attending his entrance, was worthy the representative of a powerful monarch; but he had no sooner landed, and entered his dwelling, than the doors were locked on both sides, and the keys sent, at sunset, to the governor.

The day after the ambassador's departure, two banjos came on board with a vast number of boats to receive the presents. Two boatswere lashed together, in order to disembark the large mirror, having a platform of strong planks laid across them covered with mats, upon the top of which was spread, certainly very unnecessarily, a red cloth. I endeavoured to persuade them, but in vain, to take this valuable covering away, as the mirror was by no means better placed on account of it; but the repect in which every thing that has the least connection with the Emperor, is held in Japan, was too great to admit of any economical considerations. A guard of soldiers got instantly into the boat, ranging themselves by the side of the mirror.

The following anecdotes serve to characterize this nation, or rather the spirit of the Japanese government. I inquired of one of the interpreters in what manner it was proposed to convey this large mirror to Jeddo, who told me that it would be carried there; upon which I replied that this did not appear practicable, as the distance was so great, and every mirror would require at least sixty men to relieve one another every half mile. His answer was, that nothing was impossible to the Emperor of Japan; and as a proof of his assertion he related to me, that about two years before, the Emperor of China had presented the Emperor of Japan with a live elephant, which had been carried from Nangasaky to Jeddo. The following example, which I learnt upon another occasion from one of the interpreters, and which he did not mention to me in proof of the power of his sovereign, but merely as a fact which had recently occurred, will sufficiently demonstrate with what punctuality the emperor's orders are executed, without any consideration to even apparently the most insuperable obstacles. A Chinese junk was driven on shore in a gale of wind, upon the east coast of Japan, in the bay of Owary, on which occasion she lost her masts and rudder. As, according to an ancient regulation, every foreign ship which may touch upon the coast of Japan, either accidentally, or from being driven upon it in a gale, must immediately be brought to Nangasaky, this ship also, although in a very bad condition, was ordered to be carried round. In Japan such a thing cannot be effected except by means of towing boats, and several hundreds of these were immediately sent to tow the ship from the bay of Owary to that of Osacca: a voyage during which it was not unlikely, that on the first high wind, which are very frequent upon this coast, both ship and

boats would go to the bottom. From the bay of Osacca the navigation was indeed not so dangerous, as the passage was not in the open sea, but between the islands of Nipon and Sikokf and Kiusiu. This towing voyage, which lasted fourteen months, must have been very expensive, one hundred boats, and consequently six hundred men being kept in continual employment. The natural, as well as least expensive method would have been to have broken up the ship, or to have burnt and paid for her, sending the cargo to the Chinese at Nangasaky; but this was contrary to the laws of the land.

On the 22d December the ambassador was informed that a courier had arrived from Jeddo with the order for the Nadeshda to be carried into the inner harbour that she might be repaired. And about ten o'clock the next morning, although the wind blew pretty strong from the N. E. and it rained very hard, two banjos came with their flotilla and towed the ship to the bay, where we brought-to about a quarter of a mile from the land between the Dutch Dezima and Megasaky, and cast anchor in five fathoms water, with a second anchor carried out to the N. E. On this same day two Chinese junks arrived, and four others some days after. A seventh had been stranded during the gales on the Gotto islands, but the crew was all saved, and after a few weeks arrived in Japanese boats at Nangasaky.

The following is the intelligence, though indeed very incomplete, which I have been able to collect with regard to the Chinese trade.

Twelve ships are permitted to come to Nangasaky annually

from Ningpo, (or, as the Japanese pronounce it, Simfo,) five of which arrive in June and sail in October, the other seven in December, and return in March or April. Their cargo consists chiefly of sugar, ivory, tin plates, lead, silk stuffs and tea. That this last article is among the imports from China I did not indeed learn from the interpreters; but upon our departure they gave us the choice between Chinese and Japanese tea. We chose Japanese, and found it much worse than the other; and I believe that what is said of the excellence of the Japanese tea is very much exaggerated. A small box full, which the governor presented to the ambassador shortly after our arrival, and some that the officers of the embassy drank at an audience in the governor's house, were very inferior to the better kinds of Chinese tea.* The Chinese exports from Japan consist of copper, camphor, lacquered wares, umbrellas, but particularly the dye-fish, which is used as a medicine in China; besides these are a kind of sea plant, and large dried muscles, which last, known in Japan by the name of *Awaby*, are among their provisions, and are considered in China as a great delicacy. We ourselves thought them no bad food; and they may very well form a part of a ship's provision, as they will keep during several years. Although from the number of Chinese junks it should appear that their cargoes are very considerable, a junk not yielding much in size to a ship of four hundred tons; yet I believe that two ships of five hundred tons would be able to stow away easily what is conveyed in all the twelve. A junk is unloaded in the course of twelve hours; but this is done with a total want of order, the cargo consisting of small bags and boxes

* The Japanese only drink green, the Chinese on the contrary always black tea.

being thrown out of the ship without any regard either for the goods themselves or the boats destined to receive them. The rigging of one of these junks consists of little else than a few shrouds, nor have they the means of lowering or hoisting into the vessel, any articles of weight, with the necessary precaution. Another cause of this uncommon negligence in unloading them is, that the Chinese themselves are not present; for on the day after their arrival the captain and the whole crew are carried to the factory, and the Japanese take immediate possession of the vessel; nor are they allowed to return to it until a few days before their departure. As soon as the ship is unloaded, they take the opportunity of the first new or full moon, when the tides are lofty, to drag it on shore where it remains high and dry during the ebb. Their construction is of such a nature as to receive but little injury from this treatment, and their unfriendly hosts would probably not give themselves much concern about any accidents they might sustain. Besides these twelve ships which arrive here annually, there are two others left constantly in pledge; and the easy manner in which they disposed of one of them for our use, shews how much the Japanese consider them as their own property. We had another proof of the little consideration shown to the Chinese; for as the warehouses which surrounded the governor's house were not sufficient to contain all the empty water casks belonging to the ship, the Japanese immediately made room for us in two warehouses belonging to the former in the neighbourhood of Megasaky.

During the whole time of our stay here, we never witnessed the arrival of a single ship, either from Corea or the Likeo

islands, notwithstanding their vicinity; and all intercourse between these countries and Japan is said to have ceased for some time past; a circumstance that was mentioned in the letters which were delivered to the ambassador upon his departure. It would be very advantageous to any European nation that might be allowed to enjoy the carrying trade between Ningpo and Nangasaky. The distance is not above ten degrees in longitude; and as the latter place is well to the eastward of the former, the voyage is practicable in either monsoon, and cannot exceed at the most four days.

On the 25th December the ship was quite unloaded, even to the ballast, of which we had about two hundred ship tons on board. We now began to repair her, and the leak was found, as I expected it, towards the head of the ship. To my great satisfaction, however, I perceived that the remaining planks were all in a most admirable condition. The copper throughout was very bad, and I should have been glad to have availed myself of the opportunity of sheathing her with Japanese copper as low as it could be done without keelhauling her; which, owing to the muddy shore here, would be utterly impossible. As the governor had received orders from Jeddo to furnish every thing that was required towards the repairs of the ship, he offered to send to Miaco for sheets of copper for me, for that which is to be had in Nangasaky is very thin, and by no means proper to cover a ship's bottom. Of this latter, however, we obtained five hundred pieces for the use of our barges and long boat. The ambassador took upon himself to order this copper upon his journey to Jeddo: and the Japanese who knew, already at that time, that the embassy would not proceed there,

the arrival of a nobleman at Nangasaky having been announced, were not a little rejoiced to find themselves relieved of this trouble.

On the 14th January, 1805, there was a total eclipse of the moon, of which we were prevented by a dark cloud from witnessing the commencement; we, however, distinguished the darkening of several spots, as well as the re-appearance of the moon out of the shade. Dr. Horner made use of one of Dolland's astronomical telescopes, and I had one of Ramsden's terrestrial ones of about three feet in length. This eclipse could not influence our determination of the geographical longitude of Nangasaky, which had been much more correctly ascertained by a number of lunar observations, and by the eclipse of one or two stars, than it could be done with our imperfect means of observing it. The Japanese knew that such an eclipse would occur on this day, though the time of its commencement was not stated in their Almanack. I took pains to collect some accounts of the knowledge the Japanese possess of astronomy, but they are too unsatisfactory to be mentioned here; and it is very improbable that any great progress should be made in a science that requires some exertion of the mind, in a country where the best informed, which the interpreters undoubtedly are, have no notion of the geographical latitude and longitude of any place. According to their report, (and we may perhaps believe them in this instance, as it is so much beyond their ability to have invented such a story,) there are in the north of Japan, in a town at no great distance from Jeddo, people who inhabit temples and are called *Issis*, and who possess the art of foretelling eclipses of the sun and

moon. Interesting as it would have been to have acquired some information concerning these Issis, the few possessors of astronomical knowledge among so many millions of people, this was altogether impracticable from an ignorant interpreter. There are no written accounts of the astronomical knowledge of the Japanese, or whether they have made even the same little progress as their neighbours the Chinese, among whose monarchs there have been some who possessed a taste for this science and cultivated it. Had the ambassador obtained permission to travel to Jeddo, Dr. Horner, whose intention it was to have accompanied him, and to have taken an astronomical apparatus with him, might certainly have been able to procure some important information upon the subject in the neighbourhood of this temple of Urania. From Thunberg's statement, there are among the physicians of Jeddo persons who have a taste for scientific acquirements, and he must certainly have met with some among them capable of giving information on this head. The predictions of the eclipses of the sun and moon by the Issis, are inserted in the calendars, of which there are two kinds, one very complete, for the rich, and another, an abbreviation, for the poorer classes, published annually in Jeddo.

On the 16th January I was sent for in a great hurry to the ambassador's, where I found two banjos with several interpreters and assistants, on account of an attempt by one of the Japanese whom we had brought with us from Europe, to put an end to his existence, which, however, had been perceived soon enough to prevent the execution of his purpose. Dr. Langsdorff, who resided in the ambassador's house, immediately proceeded to stanch the blood, the man having cut

his throat with a razor, but was prevented by the Japanese guard, the governor not having been informed of it; and the patient was obliged to lie bleeding until the arrival of the banjos who were sent for. Neither Dr. Espenberg nor Dr. Langsdorff were even then allowed to assist him; but he was delivered over to a Japanese surgeon and a doctor:* fortunately the wound was not found dangerous.

The governor immediately upon our arrival had requested the ambassador to give him up the four Japanese, which he declined, intending to present them himself to the emperor. A few weeks later this request was repeated on the part of the governor, and met with the same reception. Some time after the ambassador applied to the governor to take these Japanese off his hands, but the answer he received was, that as he would not give them up on the two applications that had been made for them, he might now keep them himself; but he promised to send a courier to Jeddo for instructions how to act. No answer came from thence, and it was only on the day of our departure that they quitted the ambassador's house. These unfortunate wretches saw their country after a tedious voyage of fourteen months once more, but were then obliged to pass seven months in a state of confinement, after which it was even doubtful whether they would be permitted to return to their families, though this had been the only motive that induced them to quit the careless independent life they passed

* In Japan a doctor is distinguished from a surgeon; the first having his head entirely shaved, and the other entirely covered with hair. The Japanese generally have their heads half shaved.

in Russia. The precise reason for this poor creature's making an attempt on his life is not easy to determine, though a Japanese can never want one to wish himself well out of the world. It might have been despair at having returned to his country without being able to join his family; or a report might have reached him that the fate of those, whom Laxmann in 1792 had brought back to Japan, had been eternal confinement, without the smallest intercourse with their families. There was still another motive adduced, which, if it be true, may justify the harsh opinion which I expressed of the Japanese character in the fifth chapter. It was said that shortly after our arrival in Nangasaky he had delivered a written paper to the banjos, in which he not only complained of the cruel treatment his countrymen experienced in Russia, but described the Russians as the most bigotted of Christians, adding that several of them had been forced to embrace that religion, and that the object of this voyage was chiefly to make an attempt to introduce it into Japan. Nothing but the greatest wickedness could have excited this man to so infamous an action, as he could not be led to it from a spirit of revenge, for he, as well as all his countrymen, were received in Russia with a most exemplary kindness, obtained presents from the emperor upon their departure, and were treated on board the ship with every attention. This paper had, however, no effect; and partly despair of having failed in his purpose, partly a consciousness of his diabolical conduct, might perhaps have induced him to make an attempt on his life. After his wound had healed, he was frequently heard to say that the Russians were very good people, but himself a very bad man; and that he wished his life might soon have an end.

On the 19th February the ambassador received an official notice that the emperor had sent a person, attended by eight nobles, to Nangasaky, with full powers to treat with him. The interpreters did not exactly tell him that he would not now have any occasion to travel to Jeddo, yet this was easily to be inferred. The person whom the emperor had sent was of the highest rank, and, according to the expression made use of by the interpreters, was permitted to see the emperor's feet, though never to exalt his looks higher; (an honour which even the governor of Nangasaky could not boast;) and it was not to be supposed that so great a character would be sent merely to accompany the ambassador to Jeddo. A visit of the interpreters had sufficiently apprised us of the earnest wish of the Japanese government for our departure in the beginning of April. On the 27th February they came on board, to inquire in the name of the governor after our health, and from the questions they put to me, and which I heard with great pleasure, it was easy to perceive that their chief object was to know in how short a time the ship would be made ready for sea. Such a hint was not to be neglected, and I therefore began to get her in readiness, and had no cause to complain of any delay on the part of the Japanese in providing us immediately with all that we stood in need of.

It was only, however, on the 12th March that Skeyseima, the chief interpreter, acquainted the ambassador that he would not be permitted to travel to Jeddo; and that the Japanese plenipotentiary would arrive in ten or fifteen days in Nangasaky, after which the ship must return to Kamtschatka, as soon as she could possibly be fitted for sea. The interpreter farther

informed us, that we should not be allowed to purchase the least thing in Japan, but that the emperor had given orders to supply the ship with all that was necessary, as well as with provisions for two months, free of any charge to us.

On the 31st March, or 1st April, according to our reckoning, a feast was celebrated in Nangasaky, called Mussume Matzury, the chief character of which is that parents, on this occasion, present their children with dolls. Unimportant as the object of this holiday appeared, it must nevertheless be of great consequence in Japan, two days being devoted to these childish entertainments, and we were requested not to suffer the carpenters, employed upon the boats on shore, to work during its celebration.

On the 30th March, at about eleven in the forenoon, the plenipotentiary arrived from Jeddo. The negociations with respect to the ceremonies of the audience, which were conducted with great warmth on both sides, commenced on the 3d April, when it was concluded that the ambassador should pay the representative of the Japanese emperor, an European and not a Japanese compliment. This latter, indeed, is of so debasing a nature, that even the very lowest of Europeans could not submit to it; but he was obliged to appear without his sword or shoes, nor would they allow him a chair, or any kind of European seat, but reduced him to the necessity of sitting in front of the governor and the plenipotentiary, on the floor, with his feet tucked under him, an attitude by no means the most convenient. He was allowed for his own use a

norimon or sedan chair, but the officers who attended him were obliged to proceed on foot.

On the 4th April he had his first audience, to which he was conveyed in a large boat adorned with flags and curtains. His suit consisted of five persons, Major Frederici, Captain Feodoroff, Lieutenant Koscheleff, Dr. Langsdorff, and Counsellor Fossé, besides a serjeant who carried the standard; and he landed at a place to the north of Dezima, which the interpreters called *Mussel Trapp.* On this occasion, merely an exchange of compliments took place, and a few insignificant questions were put to him. The second audience was conducted with the same ceremonies, and here the negociation terminated; the necessary documents being delivered into his hands, which contained an order that no Russian ship should again come to Japan; and the presents, and even the letter from the Emperor of Russia were all refused. Should any Japanese hereafter be cast upon the coast of Russia, they were to be delivered over to the Dutch, who would send them by the way of Batavia to Nangasaky. Farther; we were forbidden from making any presents,* or purchasing any thing for money, as well as from visiting, or receiving the visit of the Dutch factor. On the other hand it was declared, that the repairs of the ship and the supply of provisions, were taken into the imperial account; that she should be provided with every thing for two months,

* After many repeated intreaties and representations, the ambassador was at length allowed to give seven different articles to seven interpreters. These were a mirror, a piece of cloth, a glass lantern, a pair of girandoles, a pair of marble tables, and a marble ewer.

and that the emperor had sent 2000 sacks of salt, each weighing 30 pounds, and 100 sacks of rice, each of 150 pounds weight, besides 2000 pieces of capock or silk wadding, the former as a present for the crew, and the latter for the officers. The reasons assigned by the plenipotentiary for rejecting the presents were, that the Emperor of Japan would be obliged to make a present in return to the Emperor of Russia, and send an ambassador for this purpose to St. Petersburgh, and that it was contrary to the laws of the empire for any Japanese to quit his country.

This then was the result of an embassy, which had raised such great expectations. We gained no new advantages, but even lost those we had possessed, namely, the written permission which Laxmann had procured for us to visit Nangasaky. All communication is now at an end between Japan and Russia, unless some great change should take place in the ministry of Jeddo, or indeed in the government itself, and this is perhaps not to be expected, although the interpreters flattered the ambassador with assurances that this refusal had created a great sensation throughout Japan, but particularly in the cities of Miaco and Nangasaky ;* but I am pretty well convinced that the Russian trade will not suffer much in consequence of it.

On the 16th April, the ambassador had his last audience of the plenipotentiary; immediately after which, they began to

* By what Lieut. Chwostoff, who visited the northern coast of Jesso in the years 1806 and 1807, learned from the Japanese, a revolution actually did take place in Jeddo, for which the reason assigned was the dismissal of the Russian embassy.

bring the cannon, anchors, cables, and provisions, on board. The satisfaction which the prospect of soon quitting Japan occasioned to the ship's company, was evinced in their activity, and the working sixteen hours a-day, to get the ship in readiness; but without the assistance of the Japanese and their boats, it would have been impossible for us to have been ready to sail by the 16th April.

CHAPTER XIII.

DESCRIPTION OF THE HARBOUR OF NANGASAKY.

First Discovery of Japan by the Europeans—Attempts made by different Nations to form a commercial Intercourse with the Japanese—Examination of the hitherto determined geographical Situation of Nangasaky—Difficulties of taking an exact Plan of the Bay—Description of this, and of the Islands within it—Directions for entering and sailing out of it—Measures of Precaution—Monthly Observation of the Weather from October to April.

I SHALL preface this chapter, which I intend to devote chiefly to a description of the harbour of Nangasaky, by a short sketch of the earliest knowledge the Europeans had of the Japanese islands, which perhaps may not be considered as misplaced here.

It is now a mere matter of conjecture what may have been the first accounts received in Europe of Japan; but we are probably indebted for the earliest knowledge of the existence of this country to the celebrated travellers Rubruquis and Marco Polo.* It appears certain, that the discovery of Japan happened accidentally, about the middle of the sixteenth century. Fernando Mendez Pinto, a Portugueze, who undertook a voyage on board a Chinese junk, (commanded by the then celebrated pirate Samipocheva,) from Macao to the Likeo islands, was wrecked

* They both undertook their long voyages about the middle of the thirteenth century.

in 1542 upon the coast of this kingdom.* Three other Portugueze, who pretend to have touched that same year, in a Portugueze ship, upon the coast of Satzuma, dispute, indeed, with Pinto the honour of the first discovery; but neither the year of the discovery, nor the nation through which it was effected, is changed by this dispute. The Spaniards soon after began to visit Japan, but their connections were of very short duration; although the vicinity of the Philippines promised an advantageous commerce between these two rich groups of islands. Nor was the first visit of the Spaniards in Japan occasioned by any commercial projects, but, like that of the Portugueze, owing to a shipwreck. In the year 1609, the governor of Manilla, on his voyage from New Spain, was wrecked upon the Japanese coast, in latitude 35° 50′, and the emperor sent him, with all his people, to Acapulco, on board of one of the ships built by an Englishman of the name of Adams, of whom we shall presently make farther mention. This accident was followed by an embassy, which the Spaniards sent, with a number of presents, to the Emperor of Japan, in the year 1611;† but at the time of the extirpation of the Christians from Japan, they, as well as the Portugueze, were prohibited from ever touching at these islands; nor have they since attempted to renew an intercourse, which must have proved equally advantageous to both parties. The Dutch, who, by means of their free constitution and an adventurous spirit of trade, had become rich and powerful, could not but wish to participate in the trade with Japan, although at that time

* Histoire de Japon, par Charlevoix, 1754. Paris, in 12mo. 21 tom. p. 4.

† Entick's Naval History, in folio, p. 890

unable to carry it on with the same advantage as the Spaniards and Portugueze, as they then had no possessions in India. An accident favoured their intentions: in the year 1600, a Dutch ship, belonging to a squadron of five vessels, which sailed in 1598 from the Texel for the East Indies, under the command of Admirals Mahu and Simon de Cordes, was cast away on the east coast of Japan. William Adams, an Englishman, was the chief pilot on board of this ship, and to him the Dutch are indebted for their trade with Japan. The whole squadron was lost in its passage through the straits of Magellan, and in the South Sea, with the sole exception of the vessel that Adams steered; and this, on the 19th April, 1600, ran into the harbour of Bungo, in 35° 30′. Adams had the good fortune to please the Emperor of Japan, who loaded him with presents, but would not permit him to return to his country. The account he sent to the Dutch in Batavia of his residence in Japan, and of the possibility of opening a commerce between the two countries, induced the Dutch East India Company, in 1609, to send a ship there, and through the means of Adams, the emperor's favourite, the trade immediately commenced; and in 1613 the Dutch were allowed to establish a factory at Firando.* They are hitherto the only people who have succeeded in retaining the favour of the Japanese; that is to say, they are permitted, under very mortifying restrictions, to carry on a

* Entick's Naval History, in folio, p. 389—392. In the computation of time Entick has made an error of about twelve years. Admiral Mahu's fleet, according to him, sailed about the year 1586, and entered Bungo in 1588. See also, Burney's Chronological History of the Discoveries in the South Sea, Vol. XXI. p. 186—198, and Harris's Collection of Voyages, Vol. I. p. 256, of the edition of 1600.

trade between Batavia and Japan, consisting in their sending yearly only two small ships. In 1641, they were expelled from Firando and confined to Dezima; three years after the Portugueze, not without their active co-operation, had been compelled entirely to abandon their trade with Japan. The English obtained, nearly at the same time as the Dutch, namely, in the year 1613, by means of their countryman Adams, the permission to establish a factory in the island of Firando; but this trade was very soon after abandoned, although they were well received in the country, and were permitted to prosecute their intercourse on the most advantageous footing.* The motives which induced the English to quit Japan are not known: they were certainly not driven away, otherwise this circumstance would undoubtedly have been published to the world by the Dutch, who were still suffered to remain; but since that period, they have frequently endeavoured to resume their commerce with the Japanese, but always without effect. In 1637, four ships, under the command of Admiral Lord Woddel, arrived at Nangasaky from Macao, where they had been refused admittance, but without meeting here a better reception.† In 1675, another English ship arrived at Nangasaky, but was sent away under the pretext of the King of

* The letter from the Emperor of Japan to King James of England, and the treaty of commerce concluded by Captain John Saris with the Japanese government, in the name of the East India Company, are to be found in Entick's Naval History, p. 395.

† Voyage de Hagenaar aux Indes, dans le Recueil des Voyages qui ont servi à l'Etablissement et aux Progrès de la Compagnie des Indes Orientales, Tom. IX. p. 471. The expedition conducted by Lord Woddel, in 1637, is not mentioned in Entick's History.

England, Charles I., having married a Portugueze princess. In 1803, the same year as that in which we sailed from Russia, another attempt was made, but likewise without success: a company of English merchants in Calcutta had sent a ship, very richly laden, under the command of Captain Torey, to Nangasaky; but it was ordered to quit the Japanese coast in the space of twenty-four hours. The Americans, in the years 1801 and 1802, had failed in a similar project: the French have never ventured to attempt it.

Thus it appears, that during two centuries and a half, Japan has been visited by different nations of Europe, and that Nangasaky has been frequented annually during two hundred years. Notwithstanding this, no positive information has been obtained upon the latitude and longitude, and still less, has any plan been taken of this, which is one of the best harbours in the world, and which, in the hands of Europeans, might be made one of the most advantageous. Kämpfer, Charlevoix, and Thunberg, have stated the longitude and latitude of Nangasaky, but their determinations are all incorrect; and the plan of the harbour given by Kämpfer is extremely faulty. In the fourth volume of Dalrymple's admirable collection of Charts, are several plans of the harbour of Nangasaky, after English and Dutch manuscripts; but, with the exception of No. 27, which is a chart of the south-west coast of Japan, in which the latitude of Cape Nomo, the town of Nangasaky, and the entrance of the harbour are really given with great accuracy, considering its date, they are none of them better than that of Kämpfer. The most correct position of Nangasaky is, however, to be found in the General Chart of Barbié du Bocage, the geographer to

Dentrecasteaux's voyages, published by Labillardière, the naturalist to the expedition. We found but a very trifling and almost imperceptible difference, both in the latitude and longitude: but I believe that this concurrence is to be ascribed merely to chance; for before our time no astronomical observations were ever made at Nangasaky, except an observation of an eclipse of the moon in the year 1612. This was observed at the same time at Nangasaky and at Macao, and gave one hour as the meridian difference of these two cities. Now as the longitude of Macao is 113° 37′ 19″,* it follows that that of Nangasaky must be 128° 37′ 19″, which is only 1¼° different from the true longitude. I am not aware of any more recent astronomical observations at this place.

The observation of the moon's eclipse in 1612, is mentioned in the Mémoires de l'Académie des Sciences à Paris, tom. VII, seconde partie, p. 96, edition in 4to, 1729, where it is related in these words:

" En l'année 1612 les Pères d'Aleni et Ureman observèrent une éclipse de lune à Macao le 8 Novembre,

Le commencement à - - - - - - - 8h. 30′
La fin - - - - - - - - - - - - 11h. 45′

Le Père Charles Spinola, qui eut le bonheur d'être brulé à petit feu dans le Japon pour la foi de Jesus Christ qu'il étoit allé y prêcher, observa à Nangasaky, capitale du Japon, le commencement de cette éclipse à 9h. 30′.

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* The reason why I have assumed 113° 37′ 19″ as the longitude of Macao, will be seen in the 12th chapter of the next volume.

Donc la différence entre les meridiens de Macao et de Nangasaky est 1°, qui vaut 15°.

Donc la différence en longitude entre Paris et Nangasaky (la longitude de Macao étant 111° 26′) est 126° 26′."

Spinola's observation is incomplete, as he only gives the commencement of the eclipse. The longitude of Nangasaky could not therefore be calculated with perfect accuracy; but it is undoubtedly very wonderful that two hundred years ago, that of Macao should have been so correctly ascertained, as to vary only nine or ten minutes from the latest and best observations. In the year 1612, these same jesuits, Aleni and Ureman, determined with considerable precision the latitude of Macao at 22° 23′.

Captain Burney, who discusses the longitude of Nangasaky in his Chronological History of the discoveries in the South Sea, rejects the longitude deduced from Spinola's observation, and has determined it by another method, varying but very little from the true longitude, namely 130° 06′ E. He has deduced it from the ascertained longitude of Tsus-sima, and the distance of this island from Nangasaky; and it appears that he has taken the mean of La Perouse's and Broughton's longitude of the north end of Tsus-sima, and of Kämpfer and Valentine's, as the ground of his meridian distance.

According to La Perouse, as quoted by Burney, the north point of Tsus is 129° 37′,*

* The north end of the island of Tsus, according to La Perouse's chart, is 127° 37′, or 129° 57′ E. of Greenwich. In the first chapter of the second volume of my voyage, it will be seen that the longitude of Tsus-sima, according to La Perouse's own statement, must be =129° 22′.

According to Broughton - - - 129° 30′
The mean is therefore - - - - 129° 33′ 30″

The meridian distance between Nangasaky and Tsus-sima is stated by Kämpfer to be 40′,* and by Valentine 25′, the mean of which is - - - - - - - - - 32′ 30″
Consequently, 129° 33′ 30″+32′ 30″=130° 06′ 00″.

In the Connaissance des Tems, which generally contains the most correct determinations of latitude and longitude, there is an error of 13′ in the latitude of Nangasaky; and that assigned by the above-mentioned Captain Torey, in 1803, approaches much nearer to the truth. By his observations, which were imparted to me at Canton by Captain M'Intosh, to whom so much credit is due on account of his hydrography of the East Indian and Chinese seas, the city of Nangasaky lies in latitude 32° 45′ and longitude 229° 45′ W. of Greenwich. This determination has, indeed, never been publicly known, although, of all the authorities which I have adduced, it is the only one that can be adopted as correct; being the latest, and by an Englishman, who never traverses the East Indian seas without a chronometer, and who is perfectly acquainted with the method of lunar observations. As Captain Torey only continued twenty-four hours in the bay of Nangasaky, no blame is due to him because his longitude differs nearly half a degree from ours, while his difference of latitude is extremely trifling.

Although Nangasaky may be closed for a long time against

* By our observation, the meridian distance between Tsus-sima and Nangasaky is 39′.

Europeans, it would be too much in the spirit of the Dutch merchants, were I to withhold the nautical remarks and observations which we made during our stay there. I therefore consider it as my duty to publish whatever seems likely to become useful, even though not till a remote period; and the object of our enlightened monarch, who instituted this voyage, would be very ill attained, if every thing of a philosophical nature that we were able to collect during the prosecution of it were not made public in the most circumstantial manner.

The entrance of the harbour of Nangasaky lies in latitude 32° 43′ 45″ N. and longitude 230° 15′ 00″ W. in the middle of the bay of Kiusiu, which is formed by Cape Nomo to the south, and Cape Seurote to the north. From Cape Gotto in 32° 34′ 50″ and 231° 16′ 00″, the entrance of the harbour bears E. by N. fifty-one miles. The distance from the easternmost of the Gotto islands is only thirty-three miles, and perhaps still less, from a chain of small rocky islands which stretch to the N. E. from the Gottos and probably join to Cape Seurote, and seem, at this point at least, to render a passage impracticable; and which, according to the report of the Japanese, is only navigable for boats. Having correctly ascertained the entrance, no doubt can exist as to the course to be steered; but should the want of an observation occasion any uncertainty, the mountainous nature of this part of the coast renders Nangasaky very remarkable. The land at Cape Nomo and Cape Seurote is not particularly high, but Nangasaky, on the contrary, is surrounded by very lofty mountains, among which are a regular chain higher than the rest at the southern extremity, which lie rather E. by S. of the entrance. It is best to keep

as much as possible in the middle between the Gotto islands and Kiusiu, and to steer a north-east course until the parallel of the entrance, and then due east. In this direction the hill behind Nangasaky soon becomes visible, and is a certain mark even at a very considerable distance. When within about nine or ten miles of the entrance, a large tree is seen on the island of Iwo-sima, on the south side of it, and this tree, which is visible even at a greater distance than ten miles, being brought to bear S. E. 85°, is then in a line with the point of the above-mentioned hill. With these two very particular marks, it is impossible to miss the course to be pursued; but if, on making the land of Kiusiu, you steer to Cape Nomo, as we did, believing the entrance of Nangasaky to be twelve miles more south than we found it, and then along the coast, you are not only in danger, either in a calm or by the tides, which at the time of the full and new moon are very strong, of being driven too near the rocks, but might very easily mistake an entrance in latitude 32° 40′ for the true one, and which, though it really leads to Nangasaky, might prove dangerous, never having been explored.

Cape Nomo, the southern point of the bay of Nangasaky, lies in latitude 32° 35′ 10″ and longitude 230° 17′ 30″. This promontory consists of a hill, with a split or double summit, and at a little distance has the appearance of an island; and when near it is very remarkable by a large rock which lies in its front. Between Cape Nomo and the entrance into the harbour are a number of rocks and small rocky islands, one of which is of considerable height, and others, like the Papenberg in the bay of Nangasaky, are remarkable from being planted

with trees from the base entirely up to the summit. Behind the islands and the rocks is a bay, the south side of which is bounded mostly by a flat and very well cultivated country: farther inland it is more mountainous, the hills stretching in a north-west direction as far as Nangasaky, in large ranges adjoining each other, and planted with avenues and groups of trees. Behind Cape Nomo the coast assumes a south-east direction; and here there appears a large bay which, in the Japanese charts, is called Arima, but which we were unable to examine. The last point seen by us is in latitude 30° 32′ and longitude 230° 11′.

Cape Seurote bears N. W. 11° 30′ of Cape Nomo twenty-five miles; and from the entrance N. W. 30°, seventeen miles and a half, and is in latitude 32° 58′ 30″ and longitude 230° 25′. The cape itself is not of an extraordinary height, and may be known by a hollow to the south-east, from which the land rises to the north, and is, on the whole, more mountainous than Nomo. Southward of Seurote are several islands of which the largest and nearest to the cape is called Natsima, and the most to the south Kitsima; but these, as well as the cape itself, we only saw on the 8th October, the day of our arrival, and on quitting our first anchorage on the 9th.

The harbour of Nangasaky may be divided into three parts; for it contains three different roads, which are all perfectly safe. The first without, to the westward of the island Papenberg; the second in the middle to the eastward of that island, and the third at the bottom of the harbour forms the inner road in front of the city. As we lay for a considerable time in all of them, I am enabled to describe them very circumstantially. The en-

trance is formed to the southward by the north end of the island Iwo-sima, and to the northward by Cape Facunda,* which two points lie N. E. and S. W. 40° distant about two miles and one-third from each other. In the middle between them the depth is thirty-three fathoms, and with this water we anchored over a bottom of fine grey sand. In the direction of E. S. E. E. S. E. ½ E. and E. (the course of the outer road) it gradually decreases, till you anchor in twenty-two or twenty-five fathoms over a bottom of thick green ooze covered with fine sand. This outer road, to the west of Papenberg, is completely sheltered against every wind except the north-west and west-north-west; but as this wind blows but seldom during the north-east monsoon, and never very strong, it is perfectly safe at this time of the year. The anchorage is excellent, and we had considerable trouble in weighing our anchor, after it had lain in the ground during eight days, in which time it had not blown at all fresh, nor was it weighed the second time without trouble, although we passed but one night here; so that unless a vessel intends to remain here any time, it will be found sufficient to cast out a kedge, instead of a second sheet anchor. Ours lay to the north in a depth of eighteen fathoms. This road is formed by the following islands: to the W. and S. W. is the lofty island Iwo-sima, which lies nearly north and south, and is one mile and a half in length: the hill which forms it is divided in the middle by a low valley, where there are some houses, and upon the top of the northern half of the island a large tree standing in an insulated situation, and visible at a considerable distance, marks the

* The northern cape, at the entrance, I have called, for want of another name, after the town of Facunda, which lies in an open bay not far from thence.

entrance to the harbour, and was of particular service to us in combining the plan of the harbour with the sea marks. In an almost north-east direction of the hill from the tree, is a valley with a considerable village, surrounded by a very fine wood; and in the same direction, about a quarter of a mile from the shore is a rock, which I believe is covered at high water. E. S. E. of the island of Iwo-sima is another, called Taka-sima, and these two are divided by a channel scarcely half a mile wide, but which must be entirely free from rocks, as a Chinese junk passed through it, and these vessels, being so badly manœuvred, require a very safe passage. Kajack-sima lies N. E. of Taka-sima, and they are probably only separated by a channel full of rocks, or may perhaps be connected together by a small neck of land, a circumstance we were unable to ascertain. At all events there is no passage, not even for the smallest boats, which makes it the more probable that these two islands are connected as they are laid down in the plan. To the north of Kajack-sima lie some rocks that bear the name of Kanda-sima; and farther to the north-east the small island Amiabur, which is about a mile and a half in circumference, and is separated from the former by a small channel scarcely a quarter of a mile across. On the north-east point of Amiabur stands a Japanese fort, that is to say a building hung round with striped cloth, but containing neither cannon nor musket. The Japanese interpreter stated that there are rocks below water in the vicinity of this island, which frequently tear the fisherman's nets, and hence the name of Amiabur arises, *amia* signifying a fishing net, and *bur* to tear or break in pieces. The islands Taka-sima, Kajack-sima, Kanda-sima and Amiabur surround the outer road from the S. W. to the S. E.: to the

E. at a distance of about two miles is the main land, to the N. E. Papenberg, and the island Kamino-sima to the N.; this last is about two miles in circumference. From these another chain of rocks stretches to the W., between which there does not appear to be a passage even for the smallest craft, and Kamino-sima is surrounded by several reefs, and separated from the main, as well as from Papenberg, by a narrow channel only navigable for boats. On the east point of Kamino-sima there is another fort after the Japanese fashion, called Simbo. The following are the bearings from our anchorage in twenty-five fathoms in the outer road. The tree upon the island Iwo-sima bore S. W. 83°—Papenberg N. E. 76° 30′. The north end of Iwo-sima N. W. 85°. The bearings were nearly the same when we came to an anchor here in twenty-four fathoms at the time of our departure.

The middle road, or that to the eastward of Papenberg, is surrounded on all sides by the land, and is equally safe with the innermost one, to which I should prefer it, as its anchorage is better, though not equally good with that of the outer road. To the W. lies Papenberg, a small island scarcely half a mile in circumference, the highest of all those in this harbour, and particularly remarkable from its being planted on both sides with a row of trees from its base to the summit. By the Japanese it is called Takaboku-sima: the name of Papenberg being derived from the report, that during the extirpation of the Christians from Japan, the Catholic priests were thrown from the top of this mountain. To the S. W. lie the islands Amiabur, Kajack-sima and Taka-sima, and in a rather more southerly direction, the broad channel, open to the sea, but in

which, during the south-west storms the waves are broken by small islands and rocks lying as well without as within it, and on this account it is necessary to anchor rather nearer to Papenberg, in order to be perfectly secured. During the typhon, on the 1st October, in which the Dutch ships in the inner road were driven from their anchors, the Chinese junks lay secure, although their anchors are made of wood, and consequently much worse than those of the Dutch. To the southward and eastward is the right bank of the channel leading to the city; to the N. E. Nangasaky, to the N. and N. W. a part of the left bank of the channel of Nangasaky and the island of Kaminosima. From the outer road to the center the depth decreases gradually from twenty-five to seventeen fathoms. In this passage the only thing to be observed is to keep closer to the Papenberg than to the opposite shore, and the former may be approached within a cable's length, as even at this distance there is a depth of eighteen or twenty fathoms. The Dutch ships, as they sailed out, kept nearer by half this distance.

N. E. of Papenberg lies, about three quarters of a mile distant, a small flat island entirely overgrown with wood, and bearing the name of Nosumi-sima (Rat island); it is about the same size as Papenberg, and a hundred and thirty fathoms farther, in the same direction, is the small bay of Kibatsch, in which there are from six to ten fathoms water. This, in all the harbour of Nangasaky, is the best place to refit a ship, for in the inner one the shore is every where so muddy that no ship can approach it. It was on the left side of this little bay that we were allowed a small space, scarcely longer than the ship itself, surrounded with bamboos, as a walk.

I would recommend to ships coming for the first time to Nangasaky not to suffer themselves to be detained by any Japanese boats which come out several miles to meet them, but to sail straight for the outer road. They may even run at once into the middle road, without the least danger, particularly during the south-west monsoon. The assistance of the Japanese in this passage is perfectly unnecessary; and by rejecting it they will avoid the unpleasant predicament of being kept two days in the middle of the entrance, where, if any thing of a storm were to spring up, they would be exposed to the greatest danger. Unless my advice be adopted, they must hire a hundred boats to tow them to Papenberg, when they will experience the additional mortification of losing a hundred fathoms of towing line, which the Japanese will cut off the moment they have carried them in.

From the middle to the inner road, or to the city of Nangasaky, the course lies N. E. 40°; the distance is about two miles and one-third, and the depth decreases gradually from eighteen to five fathoms. Nearly half way, where the channel is not more than four hundred fathoms wide, are situated the imperial batteries, or the emperor's guard. These consist of a number of buildings, but without a single cannon, similar batteries being erected in different places along both shores; and indeed, as the breadth of the channel is not more than five hundred, and in some places only three hundred fathoms, it would be impossible to conquer the city of Nangasaky if the Japanese knew how to fortify it, though in its present state it is not more formidable than the most miserable fishing town in Europe. A single frigate, with a few fire ships, would destroy the whole

of Nangasaky in a few hours, notwithstanding its population, who could not possibly make any resistance. In the vicinity of the emperor's guard, on the right bank, there is a bay which was always full of small vessels, and where there is no doubt plenty of water for larger ships, and on both sides of the channel there are several similar bays. This one, owing to its romantic appearance, was very striking, and seemed to be the largest; but we were not allowed to examine any one of them.

The anchorage near Nangasaky is not so good as either in the middle or outer road, as the bottom is a very thin clay, besides that, as the south-west channel is here quite open to the sea, there is less shelter than when lying close under the Papenberg. The Nadeshda lay in five fathoms and a quarter, four hundred fathoms from Dezima, which bore N. E. 40° and two hundred and fifty from Megasaky, the residence of our ambassador, adjoining to the Chinese factory, some of the magazines of which were given up to us. Megasaky bore of the ship S. E. 80°.

The mean of a number of sets of observations to ascertain the latitude of Kibatsch and Megasaky reduced to the middle of the town according to the plan of the harbour, gave

	32° 44′ 50″ N.
The latitude of Kibatsch	32° 43′ 15″ S.
——————— Megasaky	32° 44′ 02″
——————— the flag staff at Dezima	32° 44′ 18″
——————— Nangasaky	32° 43′ 40″

The longitude is chiefly ascertained by distances from the moon, above 1000 of which were measured by Dr. Horner and myself during the first month of our stay here.

The mean of 287 distances of the sun west from the moon, measured by myself, gave for the longitude of Kibatsch, 230° 18′ 1″, 277 distances of the sun east of the moon, 230° 02′ 41″. The mean of these 564 distances is 230° 10′ 21″.

The mean of 204 distances of the sun, west from the moon, observed by Dr. Horner, 230° 19′. 260 distances of the sun, east from the moon, 230° 2′ 10″.

The mean of the 464 distances, 230° 10′ 35″.

The longitude of Kibatsch is therefore by a mean of 1028 distances, 230° 10′ 28″ W.

The center of the town of Nangasaky lies east of Kibatsch —2′ 35″.

The longitude of Nangasaky is therefore 230° 7′ 53″, or in round numbers 230° 8′ W.

The longitude of the entrance of the harbour of Nangasaky is 230° 13′ W.

The mean of all our observations on the variation of the compass in the outer and middle road was 1° 45′ 36″ W. The southern dip of the needle could not be observed, because our dipping needle was entirely destroyed by the violence of the typhon.

As we were prevented during the first three months of our stay here from quitting the ship, we were unable to make any observations on the tides, and our remarks are therefore confined to the months of January, February, March, and April; but these were made with the greatest accuracy, and without any considerable intervening space, under my particular superintendance, by the second pilot of the ship. In the last six weeks of our stay in particular these observations were conti-

nued without interruption during every hour of the day until dark, and frequently from eight to twelve times in the hour. As this was about the time of the equinox, those who are occupied with any theories upon this phenomenon may, perhaps, be able to draw some inferences not altogether unimportant from our observations, and it is only to be lamented that we were prevented from commencing them in the first months of our stay here. I know of no place where better observations may be made upon the tides than in the harbour of Nangasaky, not only because their changes are here very regular, but because the water is always very calm, and never agitated except by the most violent storms; and it is particularly to be wished that the Dutch, who have plenty of time for such occupations, would give a continued series of them.

I have always determined the time of the highest flood and lowest ebb by corresponding altitudes; and as I had several observations between each change, I could invariably take the mean of them. In the syzygies the time of the highest flood is at 7 *h.* 52′ 41″. Generally the highest flood and lowest ebb was on the third and fourth change after these and the quadratures. The highest tide we witnessed was on the 2d of April, two days after the new moon, when the horizontal parallax of the moon was 59′ 48″ and its declination 23° 13′ N. The water rose 11 *f.* 5 *in.* the wind was moderate from the north. The lowest tide was on the 25th March, two days after the quadrature, three days after the apogeum, and the same period after the equinox: the water on this day only rose 1 *f.* 2 *in.*; the wind blew gently from the northward.

Although this year was not remarkably favourable, yet the weather, during the three first months in particular, could not possibly be finer than it was here; a consequence, perhaps, of the typhon, which had entirely cleared the atmosphere. The following is in a few words the monthly state of the weather, which, as it was easily referred to, I set down at the end of every month.

OCTOBER, 1804.

The north-east trade wind, which set in with the typhon on the 1st of October, was the reigning wind during this month: now and then, indeed, it blew from the N. W. and twice from the W. and S. W. but only for a few hours. On the whole the weather was extremely fine, except on one day, the 24th, when the sky was overcast and it rained a couple of hours. The highest barometrical rise in clear weather with a gentle north-east wind was = 29 *in.* 99. The lowest in cloudy weather and a fresh wind from the S. W. = 29 *in.* 62; and the greatest degree of damp which the hygrometer* expressed under similar circumstances was 44, 0. The highest rise of the thermometer in the cabin was 10; the quicksilver, where it stood completely in the shade, rose at nine o'clock in the morning to 20° 2. The lowest stand of the thermometer was on the second morning at seven o'clock during a fresh wind from N. E. by E. when the quicksilver fell to 10°.4. Both hygrometer and thermometer experienced great changes daily. Even in the cabin the difference in the thermometer was frequently

* The hygrometer's highest degree of damp was 70° according to several experiments in the water. The highest degrees of dryness in the sun were 15° and 18°.

from four to five degrees, and in the shade upon deck, between six in the morning and noon, as much as nine and ten degrees. Until nine in the morning the bay was constantly covered with a thick mist, probably occasioned by the great transition from heat to cold.

NOVEMBER.

The wind was almost constantly between north and east. On the 4th November, three days after the new moon, we had a very hard storm from the south, with thunder and heavy rain. The wind shifted after noon from east to south-east and south, and held in this direction till midnight, when it suddenly veered to the north, and brought fine weather with it. A similar very violent south wind, accompanied with squalls, happened on the 13th November, three days after the full moon; and again on the 28th, three days after the new moon, we had another storm, with violent gusts of wind at east that lasted however only a few hours. The dew was as regular as in the preceding month, and so heavy that in the morning the deck was as wet as if it had been washed. I made an experiment one night, recollecting an old saying, to discover with a fine piece of muslin whether the dew had any colour, but did not perceive the smallest change in the stuff. The weather was throughout very sharp during this month, but we had often extremely hot weather; and the transition from heat to cold was particularly sudden. On the 13th, for instance, the thermometer stood at 10° of heat in the morning, 20° at noon, and at three o'clock in the afternoon, 24° in the shade. The next day at the same hour it was twelve degrees less, and the day after only eight degrees. In the morning at six and seven

o'clock it was rarely higher than 6°, very often only 4° and 4½°. The barometer generally stood very high; and was for nearly three days between 30 *in.* 25, and 30 *in.* 20; the wind at the time being very moderate at N. and the sky free from clouds. The lowest degree was during a strong south-east wind 29 *in.* 66. It only rained in stormy weather with the wind at south.

DECEMBER.

With the exception of the three last days of this month the weather was particularly fine, and it scarcely ever rained, unless on those days when the wind blew hard at south. The wind, except during a few hours when it blew from the south-west, was north-east, and towards the last days of the month the trade-wind set in, becoming more northerly, and even due N. or N. N. W., and so fresh and cold that the quicksilver fell to + 2°; and on the morning of the 27th, at eight o'clock, and during a perfect calm, even to + 1½°. The greatest height of the thermometer was on the 7th, when the quicksilver in the shade rose to 16°, the wind blowing pretty fresh at W. S. W. The barometer stood throughout the month uncommonly high, being seldom below 30 *in.* and frequently 30 *in.* 20. It was at the lowest on the 29th during a strong south-west wind, when in the course of eighteen hours it fell four lines to 29 *in.* 77. A thick fog, which continued until about nine o'clock, when it was dispersed by the sun, was, the same as in the preceding month, a sure forerunner of a fine day. There was never any fog with a southerly wind, and the changes in the hygrometer depended entirely upon them.

JANUARY, 1805.

The winter seemed to set in with the month of January, for the weather was now much more raw than before. The quicksilver fell on the 2d January for instance, during very clear weather, and a moderate wind at N. by E., to one degree below freezing point. On the 31st January, at five in the morning, it fell once more to 1½° below freezing point; but about two in the afternoon it again rose to 13½° in the shade, so that in nine hours there was a difference of 15°. The weather was particularly fine. These are the only two occasions on which the quicksilver fell below the freezing point, at other times its mean height, though it varied very much at different hours of the day, was at noon between 7° and 11°, and at six in the morning between 3° and 6°. The wind was mostly N. N. E. and N. N. W.; a S. W. and S. E. wind always brought storms and rain, and we had more frequently bad weather than before, not only during a southerly wind, as in the preceding month, but even with northerly winds. It only snowed once accompanied with hail, which was during a strong north wind, and the mountains remained for several hours covered with snow. We had only stormy and bad weather, as before, at the time of the new and full moon; but the heavy dew which fell so regularly in the preceding months, very seldom took place now, though it was always a precursor of fine weather, and it was at these times that the hygrometer marked the greatest degree of moisture, and even some degrees more than during a heavy and continued rain. The barometer was in general very high, and almost always above 30 *in.*

FEBRUARY.

This and January are the only two winter months, for towards the last days of February the air began to grow warmer, even with a northerly wind. The reigning winds were N. and N. N. W. which blew pretty fresh, and about the new and full moon were very violent. On the 15th, 16th, and 17th, we had a heavy storm at N. N. W. accompanied with snow and hail. The thermometer was half a degree below freezing point, and it rained several times, and with every wind. Although the northerly were the prevailing winds, gentle breezes from S. W. and W. S. W. were not uncommon, but were seldom of any duration. During the last days of the month the wind generally blew after noon very moderately for about an hour from the S. W. and W.: the barometer mostly stood above 30 *in.* but on the 26th February, during a continued rain, which was followed by a violent storm from the W. and S. W. it fell to 29 *in.* 67, and the wind had scarcely veered to its old quarter when the quicksilver again rose above 30 *in.* I have already stated what was the lowest degree of the thermometer; the highest in the open air, in the shade, was during a moderate south-east wind 15½, and once 15¾, but only towards noon. The same variations took place in the hygrometer as during the preceding months.

MARCH.

This was the most stormy month of any. The winds were as frequent from the S. W. as from N. E. and the former generally very violent. These south-west winds always brought continued rain; yet, from the report of the Japanese, the rainy season sets in with the south-west monsoon, which does not acquire all

its force until May. The rule, that it is mostly very stormy three days before and three days after the new and full moon, was particularly verified in this month. And two days after the equinox we had a very violent gale at S. and S. W. accompanied with squalls. The greatest storm that we witnessed at Nangasaky was on the 26th, five days after the equinox, and four after the new moon. Already in the night preceding the 26th, the wind was very high at S. W., but in the morning of that day it veered to S. E. and then shifted back between S. and S. W. and during this time the squalls were extremely heavy. Soon after mid-day this storm, which the Japanese called a typhon, abated, and calms and a fog that continued for three days, succeeded it. The barometer was, comparatively speaking, uncommonly high, viz. 29 *in.* 64; and yet on the 17th and 23d March, when the gale was more moderate, it was somewhat lower, viz. 29 *in.* 61. On the 1st October, 1804, it was nearly three inches lower. The mountains, which surrounded us, and indeed the vicinity of the land, may have contributed to this extraordinary height of the barometer, as in the harbour of St. Peter and St. Paul we remarked the same thing. The temperature of the air was very variable in this, as in the preceding months. The north, particularly when it succeeded a southerly wind, was always very raw and cold. The greatest height of the thermometer was on the 2d and 16th March, when the quicksilver in the shade rose to 16°. It was at the lowest on the 5th and 12th March, when it fell to + 2° and 1½°. On the 17th, during a heavy rain and strong wind from the S. W. the hygrometer marked a greater degree of moisture, viz. 55°, five higher than we had seen it until this day.

APRIL.

The N. E. monsoon was still at its height until the 18th April, the day of our departure from Nangasaky. The wind blew almost constantly from the N. and N. N. E. but mostly very moderate. On the night preceding the 5th, four days after the new moon, we had a violent storm from the N. N. E. with rain; but the next day the storm abated, and the weather again cleared up. On the last day of our stay here, the wind was particularly moderate, and the weather constantly fine. On the 18th April, four days after the new moon, we had a violent storm a few hours after we sailed which lasted nearly two days. This was followed by a calm for two more, and the barometer, which latterly was 30 *in.* and 2½ *lines*, began to fall. During the first days of this month the low state of the barometer was very striking, for it was not higher than 29 *in.* 40; less than it had been during the most violent storm we had experienced at Nangasaky. The wind was, however, very moderate at N. E. with a dark, clouded sky. The greatest height of the thermometer in this month was on the 4th, with a moderate breeze at N. E. and E. S. E., the quicksilver remaining during nearly the whole day at 20°, and on the 17th in a perfect calm it rose to 18° and 19°, from ten o'clock in the morning until six in the afternoon. The lowest state of the thermometer was on the 14th, at six in the morning, when it was not quite 6°. Its usual state was between 8° and 12°.

OBSERVATION.

According to the remarks of the Japanese interpreters at Nangasaky, I have called the long flat island in the straits of Van Diemen (page 237) Jaconosima, and that to the S. W. of it, (page 238,) Tenegasima. But, in an original Japanese chart, in the possession of the Academy of Arts and Sciences, and in two others belonging to Counsellor Klaproth, the S. W. island is called Jaconosima, and the one to the N. E. Tenegasima. I have no hesitation in adopting the latter as the proper way of naming them, and have therefore done so in my chart.

END OF VOL. I.

London: Printed by C. Roworth, Bell-yard, Temple-bar.

VOYAGE ROUND THE WORLD,

IN THE

YEARS 1803, 1804, 1805, & 1806,

BY ORDER OF

HIS IMPERIAL MAJESTY ALEXANDER THE FIRST,

ON BOARD THE SHIPS NADESHDA AND NEVA,

UNDER THE COMMAND OF

CAPTAIN A. J. VON KRUSENSTERN,

OF THE IMPERIAL NAVY.

IN TWO VOLUMES.

TRANSLATED FROM THE ORIGINAL GERMAN

BY RICHARD BELGRAVE HOPPNER, ESQ.

VOL. II.

Les Marins écrivent mal, mais avec assez de candeur.—DE BROSSES.

London:

Printed by T. Davison, Lombard-street, Fleet-street;

FOR JOHN MURRAY, BOOKSELLER TO THE ADMIRALTY AND THE BOARD OF LONGITUDE, 50, ALBEMARLE-STREET.

1813.

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KRUSENSTERN'S

VOYAGE ROUND THE WORLD.

CHAPTER I.

DEPARTURE FROM JAPAN, AND NAVIGATION OF THE JAPANESE SEA.

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On the 16th of April, 1805, at three o'clock in the afternoon, the ambassador received the Dutch translation of the Japanese

documents. At the same time the interpreter announced to him that the boat which was to convey him on board had already arrived at Nangasaky, and that he would confer a great favour upon the governor by quitting his house in Megasaky the next morning; and he expressed in the strongest terms the governor's wish that the ship should put to sea immediately upon the ambassador's arrival on board. Although I did not expect so sudden a dismissal, yet it was always our most earnest wish to quit Nangasaky as soon as possible, being extremely anxious lest some unpleasant and unforeseen accident should occur to delay us. I therefore gladly promised, that as far as depended on myself nothing should occur to prevent our sailing, and immediately went on board, in order to get the ship ready for sea.

At four in the morning of the 17th April we hove in our first anchor, and about seven hoisted the long-boat on board: at ten the ambassador arrived. The vessel in which he was conducted, and which belonged to Prince Tschingodzin, was very handsomely fitted up and hung with silk stuffs, but by no means so beautiful as that belonging to the Prince of Fisen, on board of which he had made his entrance into Nangasaky; and the soldiers were now put into a separate boat. He was accompanied by four Upper Banjos, and almost all the interpreters. About the same time an officer with an 100 boats was announced, which were to tow the Nadeshda out of the harbour. These all belonged to Prince Tschingodzin, who upon this occasion did us the honours. Besides these, two boats were entirely filled with clothes, and each rower, of whom there were six or eight in every boat, received an uniform, consisting

of a blue woollen shirt with wide sleeves, on which the Prince's arms were woven in white. About twelve we weighed, and the 100 boats divided themselves into five strings in order to tow the ship, for which purpose they had, besides, brought their own towing lines; a thing that seldom happens, even when boats are hired and paid for this purpose. While the ship was being towed out, we received our powder, the ambassador's suite, and provisions for two days which were sent to us, on board; and so great was the governor's attention, that he furnished us with various specimens of seeds, having heard we were desirous of carrying some with us to Kamtschatka. In addition to these he sent 150 pounds of tobacco for the use of the officers, and a considerable quantity of various kinds of vegetables; offering even to provide our usual supply of food for the next day, which we however declined. It was their intention to have merely towed us to the east side of Papenberg; but I expressed a wish to have the ship brought to the west side, and though they appeared surprised at this, as the Dutch never anchored there, they did it very willingly: the desire to part as soon as possible being equally strong in all of us. At four we let go our anchor in twenty-four fathoms, the Banjos and interpreters now taking a hearty leave of us. In most of them, however, this ceremony appeared to be an acquired lesson, in which the heart was very little concerned; for, except the honest Saka-Saburo and two others, who had not forgotten that we were no Dutchmen, all the rest of them wished us a happy voyage to Batavia! We now bent our sails, for which we had hitherto had no opportunity, hoisted the boats on board, and at five the next morning sailed out of the bay with a moderate breeze at E.S.E. very glad to be released from so little honour-

able confinement, which might have been the prelude to a harder fate.

My intention of sailing back between Japan and Corea was not likely to give much pleasure to the Japanese government; for the interpreters, who may be considered as the organ of the governor, or what is the same thing, of the Jeddoese ministry, not only tried every art to persuade us of the impossibility of passing through the straits of Sangar, asserting that they were interspersed with rocks, and only three Japanese or one Dutch mile wide, and rendered dangerous by violent currents; but a letter was even addressed to the ambassador to forbid our approaching any where near the Japanese coast. The governor, however, made us a verbal promise, that in case we were obliged, either by the currents or by a violent gale, to anchor on their coast, we should not be detained; and orders were dispatched along the coasts of Japan to this effect, in return for which I was required to give my word that I would not approach the shores unless absolutely obliged to do so; and they assured me that they placed the greatest confidence in my plighted word. I explained to them, however, with respect to the north-west coast of Nipon, that it was absolutely necessary for me to examine these parts with care, as I did not know, by some degrees, the exact situation of the straits of Sangar, as even the best European charts could not lay them down with accuracy, and I well knew the impossibility of procuring one in Japan, according to which I could safely direct my course. It was therefore the more necessary for us to approach close to the shore in searching for these straits, since by their own account they were only a Dutch mile wide, and we might easily

miss them if we passed at any distance. They could not but admit the justice of my observation; and I therefore obtained their tacit permission to examine this part of their coast; though they demanded, that upon our departure from Kamtschatka for Russia, I should not approach Japan, which I willingly promised: notwithstanding all this, they endeavoured, by means of the Dutch factor, Doeff, to persuade me to alter my determination; but the motives he urged were still less powerful in my mind, as he merely alleged the difficulty of the navigation between Japan and Corea, a circumstance of which no Dutchman could then speak from experience. In this voyage we had only been preceded by La Perouse; and to his discoveries I was desirous of adding our observations, which, if only on this account, could not fail of proving interesting to the public.

As it seemed unnecessary for the Nadeshda to reach Kamtschatka before the end of July, I was desirous of employing these three months in filling up the gaps, which the celebrated French discoverer, who was the first to throw any light upon the geography of this sea, was compelled to leave, from a want of time: for the whole west coast of Japan, with the exception of cape Noto, the greater part of that of Corea, the whole west coast of Jesso, the south, east, and north-west coast of Sachalin, and most of the Kurile islands, were hitherto unexplored by any European navigator, and I had my choice of all of them. The southern part of Sachalin, as well as Aniwa bay, and gulph Patience, had indeed been visited by the Dutch in 1643; but even these parts required to be examined anew, as in the course of 160 years the method of ascertaining the geographical situa-

tion of places was wonderfully improved; and without such re-examination our knowledge of this extraordinary country would still have continued imperfect, as the subsequent proceedings of our voyage will prove. To explore the north-west and south-west coast of Japan; to ascertain the situation of the straits of Sangar, the width of which in the best charts, Arrowsmith's South Sea Pilot for instance, and the atlas subjoined to La Perouse's Voyage, is laid down as 100 miles, while the Japanese merely esteemed it to be a Dutch mile; to examine the west coast of Jesso; to find out the island of Karafuto, which in some new charts, compiled after a Japanese one, is placed between Jesso and Sachalin, and the existence of which appeared to me very probable; to explore this new strait and take an accurate plan of the island of Sachalin, from cape Crillon to the north-west coast, from whence, if a good harbour were to be found there, I could send out my long-boat to examine the supposed passage which divides Tartary from Sachalin; and, finally, to attempt a return through a new passage between the Kuriles, north of the canal de la Boussole; all this came into my plan, and I have had the good fortune to execute part of it. The want of a secure harbour on the coast of Sachalin prevented indeed my sending the long-boat on the proposed expedition, and consequently the interesting examination, which I intended to have instituted, did not take place. A complete plan of the west coast of Japan and of the straits of Sangar must be left to the favourites of the Japanese, I mean the Dutch, to whom it may perhaps not be now attributed as a crime to navigate these coasts. With respect to that of Corea from 36 to 42 degrees of latitude there can be no doubt that in the present exploring age, even this will not remain

long unexamined, particularly as a trade with this hitherto unknown people promises advantages which the Japanese are unable to avail themselves of. A fresh examination of the east coast of Jesso, as well as of the southernmost Kuriles, will probably form part of the first labours of the Russians in this sea*.

Upon our departure from Nangasaky bay, I steered a more westerly course than I held when running in the preceding year, and there now appeared behind the city a lofty mountain with a flat summit, which renders the entrance very remarkable. At half past ten it bore N. E. 85° in a line with the tree upon the island Iwo-Sima, which I have mentioned in my description of Nangasaky. Our distance from the land was about twelve miles, and the depth was hitherto from twenty-five to thirty fathoms; the ground being clayey throughout. At noon cape Nomo bore S. E. 70° eighteen or twenty miles off. The wind was fresh at S. E. with thick hazy weather. Much as I had wished to visit the parts between cape Nomo and the island of Meac-sima, and to fill up these gaps in our charts, I was not only prevented by the thick rainy weather, but by the certain prospect of a storm, of which there was every appearance all the morning, and which are here always very violent from the south-east. Prudence, therefore, obliged me to avail myself

* In Captain Broughton's Voyage of Discovery, which was published shortly after our departure from Russia, it will be seen that he explored almost all those parts which I did not intend to examine; for instance, the straits of Sangar, the coast of Corea, a part of the east side of Jesso, and the southern Kuriles. The east coast of Jesso alone was examined by both of us.

of the fair wind in order to double the dangerous Gotto islands: but my hopes of seeing the cape of that name before evening entirely vanished, the weather being so thick, that we only once, and then but for a moment, perceived one of the mountains on this island. Our course lay between this cape and the two small islands called the Asses Ears. We could not see either the one or the other, and the wind had already increased to a storm; but these two points had been ascertained with the greatest accuracy upon our voyage to Nangasaky; and during the clear weather, although we were at some distance, we had perceived no danger between them; besides I could entirely depend upon my chart, in which the distance between the two is described as thirty-two miles, double what Arrowsmith assigns to it. Although under other circumstances, I should not have passed through this channel, which probably was never navigated before without extreme caution, as the Asses Ears may perhaps be connected by a reef of rocks with the Gotto islands, we had now no other alternative than either to sail between them or return to Nangasaky, and nothing but the most absolute necessity could have induced me to choose the latter.

About seven in the evening I calculated upon being pretty nearly in the middle of the channel: the wind at this time was very high, with violent squalls and constant rain. The ship under close reefed topsails, did not run less than eight knots, and the attention of every one was strained to discover any danger, although from the darkness of the night there would have been but little hopes of avoiding it, in case any had suddenly appeared. At eleven at night we were already twenty-five miles to the westward of cape Gotto. This was quite

sufficient to insure the safety of the ship against any current which might have carried her nearer the shore, and I therefore laid her head to the S. W. The lead was hove every hour, but we could not find ground with a line of one hundred fathoms. At day-break we continued our course to the northward: the wind still being very violent from the S. E. with a heavy sea, thick weather, and constant rain. I steered first N. then N. N. E. and N. E. by N. between the island of Tsus and the coast of Japan. About noon the wind became more moderate, veering round to the S. W. We expected that it would soon shift to the W. and N. W. which is here commonly the case after a south-easter, as in fact it did shortly after. A strong current to the northward had considerably accelerated our run, for in the evening it cleared up a few moments, when we perceived land bearing N. N. E. This I at first supposed to be the coast of Japan; for according to our reckoning we were still forty miles from the island of Tsus, which ought besides to bear N. W. and not N. E. of us. The current which during the two last days had carried us nearly a mile in the hour N. E. 42° had nevertheless brought us nearer the coast of Japan; and I was the more astonished when, the next morning, I was convinced that what we had seen was the island of Tsus. After this fortunate discovery of the land I immediately altered my course, beating up during the night; a task which, owing to the heavy swell, was very unpleasant, although the wind had abated much of its violence. At eight o'clock we were distant about twelve miles from the southern point of Tsus; and upon heaving the lead found eighty fathoms water over a fine sandy bottom. On the 20th at day-break we saw Tsus immediately a-head of us to the northward, and about half-past five perceived also the

coast of Japan bearing S. E. Being at the distance of about twenty-eight miles, we could not ascertain whether what we saw consisted of several islands, forming, perhaps, a continuation of the Gottos, or whether it was one continued land, and consequently the coast of Japan, or some island of considerable extent lying near to it*.

The middle of that part of the coast of Japan which we saw, and of which a line of about fifteen miles ran before us in an almost north and south direction, lies in 33° 52′ latitude, and 230° 18′ 30″ longitude.

The stormy thick weather we had met with immeditely upon our departure from Nangasaky rendered my intention of exploring the west side of the Gotto islands completely nugatory. We had determined with considerable accuracy several points on the east side of the coasts, and this had afforded us the means of ascertaining with tolerable correctness the number, size, and extent of these islands (which perhaps had never been hitherto examined, except by Captain Colnett, whose journal has not been published). Indeed we might have examined the whole south-west coast of Japan, as far as that part of it which lies opposite to Tsus-sima, without breaking the promise I had given to the Japanese, as our course necessarily ran along this coast; but all my hopes were frustrated by the very unfavourable state of the weather.

According to some charts, Iki, which is an island not much inferior to Tsus in size, must lie in this direction.

At day-break we perceived the land, and I held my course parallel with the island of Tsus. At 8h 37′ the east end of it bore exactly west, and a small island, laid down in Arrowsmith's chart, and probably discovered by Captain Colnett, for which reason I shall call it by his name, due east. Our latitude at noon was 34° 35′ 55″ N. and the longitude by our three chronometers, which agreed with each other on an average within thirty seconds, was 230° 16′ 45″. The north extremity of Tsus at that time bore W. by N. and a high flat mountain, not far from this point S. W. 85°; at one the north end of the island bore nearly west of us.

Tsus lies in an almost north and south direction, in which its greatest length is thirty-five miles. We could form no accurate idea of its width, but I conceive it to be not less than ten or twelve miles, and perhaps more; for we saw high mountains at some distance inland. From the southern end, which lies in latitude 34° 06′ 30″ and longitude 230° 43′ 00″, the island takes an almost N. E. direction as far as a point of land that runs very much out to the eastward, and behind this it appears to divide into two; at least here the shore forms a deep bay, in the background of which the land probably closes again*. From this cape, which lies in latitude 34° 18′ 45″ and longitude 230° 30′ 15″, the island takes rather a westerly direction. This I have called cape Fida-Buengono, after the worthy governor of Nangasaky, who, during our stay there, conducted himself with a

* In the original Japanese chart Tsus-sima is actually laid down as two islands, which are separated by a narrow channel.

degree of moderation towards us which we would scarcely expect to find in the despotic agent of a tyrannical master. The north point of Tsus lies, according to Dr. Horner's observations, in latitude 34° 40′ 30″ and longitude 230° 30′ 30″; the above-mentioned flat mountain not far from this point in latitude 34° 32′ 00″.

The northern and eastern parts of this island are much more hilly than the southern; yet even here we saw some of a tolerable height, with white spots upon them, which we took for snow, though perhaps they were merely chalk cliffs; and the whole island consists of a chain of pretty high hills divided by deep valleys. Although we did not pass near enough to the shore to judge of the state of cultivation, there can be no doubt of its being well attended to, both on account of its situation, and of the known industry of the Japanese. The number of beautiful bays and harbours which we could clearly distinguish, must very much facilitate the intercourse with its eastern and western neighbours; and it is said that the Coreers, who for some time past have broken off all communication with Japan, still visit this island for the sake of its trade*.

We found the variation of the compass to be only a few mi-

* If one might credit the reports of the Japanese interpreters in Nangasaky, the emperor of Japan still asserts a claim to the possession of Corea, which is governed by the princes of Tsussima; yet this assertion appears to me to be an idle boast, similar to the fable which they wished to impose upon us respecting the prince of Satzuma, from whose family the kings of the Likeo islands are still chosen, as I have related in the eleventh chapter of the first volume.

nutes west; and the depth of water, at a distance of from twelve to fifteen miles from the east side of the island, seventy-five fathoms over a bottom of fine sand, clay, and muscle shells. Colnett's island is a naked rock of a circular form, six or seven miles in circumference, and not unlike Hood island, classed by Captain Cook among the Mendozas.—It lies in latitude 34° 16′ 30″, and longitude 230° 04′ 15″; is about twenty-three miles distant from cape Fida-Buengono, to the eastward of it, as I have already stated *. In the chart to La Perouse's voyage, the north end of Tsus lies in 34° 42′ 30″ N. which coincides within 2′ with the latitude we observed: but we were not a little surprised to discover a difference of 36′ which our observations made it more to the westward than in La Perouse's chart. It was only two days since we had quitted a port of which we had ascertained the longitude by more than a thousand lunar observations, and where Dr. Horner had most carefully tried our chronometers; and I could not therefore hesitate in giving the preference to ours, had I not even met with another proof of the accuracy of our calculation of the longitude. On the 26th May, 1787, at noon, the longitude of La Perouse's ship, according to the chart, was 117° 33′, four leagues to the eastward of the north point of Tsus. Upon this day Dagelet measured on board La Boussole some lunar distances, which gave for the longitude reduced to noon = 127° 12′ east of Paris. Triesnecker, who has corrected

* As this island is laid down in Arrowsmith's chart well to the east of the north end of Tsus, I am inclined to believe that Captain Colnett must have sailed by Tsus in thick hazy weather, and only seen the east point, which he mistook for the north. In Arrowsmith's chart, the latitude of the small island, as well as of the north end of Tsus, is = 34° 23′.

most of the longitudes derived from lunar observations during this voyage, by the solar and lunar observations instituted at Greenwich at the same time, found the longitude by this observation of Dagelet to be 230° 39′ west of Greenwich, which deducting the 4′ by which the meridian point was more to the westward than the north end of Tsus, makes the longitude of this point to be 230° 35′, consequently only 3′ more to the eastward than by our watches. This clearly proved an error in the chronometer*, according to which the chart of La Perouse's voyage was constructed; and at that moment I only regretted that Dagelet, who shared the unfortunate fate of his commander, was prevented from preparing corrected tables of the chronometers Nos. 18 and 19. However, to my great joy I found these in the third volume of La Perouse's voyage, where the true longitude of the ship on the 26th May is given at 127° 4′ 52″ east of Paris†. If, therefore, we calculate the 4′ by which the meridian longitude of La Boussole on the 26th May is laid down in the chart, more to the westward than the north end of Tsus, La Perouse's longitude of this island varies only one minute from ours. This proves the accuracy of the correction

* I have often been surprised that La Perouse, who had so extensive a collection of scientific instruments on board his two ships, should not, besides Barthoud's watch, have been provided with an English chronometer. The two pocket chronometers Nos. 25 and 29 scarcely merited the name, as they were found even at Chili to be useless. An English East India ship has seldom less than three, and generally several more upon trial.

† By the correction tables for No. 18, the longitude on the 26th at noon is 127° 23′ 11″. It is indeed there expressed, that the amended longitudes according to No. 18 are laid down in the chart; this is not, however, always the case, at least not for the 26th May.

table prepared for No. 19 by Dagelet on board the Boussole, and must procure an implicit confidence in the longitudes we assign. With respect to the Pik de Langle, cape Crillon, and cape Aniwa, three important points, the situation of which was observed with the greatest attention both by La Perouse and ourselves, the difference between Dagelet's true longitude and that which we observed is equally trifling. This discovery, which gave great pleasure to Dr. Horner and myself, is besides so far of importance, that in all the observations made by La Perouse on his voyage from Manilla to Kamtschatka there exists an error in the longitude amounting at length to a degree, but which disappears if you examine his chart according to the above-mentioned tables of Dagelet*.

As La Perouse makes no mention of the island of Tsus in his journal, I think it very probable that he took the land he saw on the evening of the 25th May after sunset bearing E. b. N. to E. S. E. to be the coast of Japan. Yet this could only have been the southern part of Tsus, as from seven o'clock in the evening until five the next morning he had run twenty-seven miles E. N. E., which is nearly the whole length of Tsus. At five in the morning he altered his course to N. b. E. (See No. 44 in La Perouse's Atlas.) Buache, who constructed the charts to La Perouse's Voyage, very justly concluded that the land he saw to the eastward on the 25th and 26th May was the

* In our chart I have adopted this correction with regard to cape Noto and the whole west coast of Sachalin. The extent of Sachalin is thus increased from fifty to sixty miles.

island of Tsus, and consequently adopted the latitudes of the extreme points of this land as the latitude of the north and south end of Tsus. But it appears to me very likely that La Perouse himself did not so conceive it, otherwise he would not have neglected to mention the situation of this island, which before him was never seen by any European navigator. This too would have been a very pardonable error, for in all the old charts Tsus is laid down much nearer the coast of Japan than we found it to be, and La Perouse might have just as well taken the land he saw to the eastward for the island of Iki, or any other of those lying close to Japan, as for Tsus or Japan itself, and Tsus is in fact a Japanese possession. La Perouse esteems the width of the channel between Japan and Corea to be forty-five miles; but as that between Tsus and the coast of Japan which we saw was likewise from twenty-eight to thirty miles, the whole distance from Corea to Japan, even where nearest each other, must be about seventy-five miles: a distance which must be still farther increased, if the land seen by us was Iki, and not the coast of Japan.

After quitting the island of Tsus we proceeded in our course to the northward and eastward, at first with a fair wind, but which shortly afterwards veered to the north-east. On the 22d April at noon we again saw the coast of Japan, bearing E.S.E., although according to Arrowsmith's chart we should at that time have been 150 miles distant. The thickness of the weather certainly prevented our having any observation; but by the ship's reckoning, which I corrected according to the current observed on the following day, our latitude was then 35° 59′, and the longitude by the chronometers 228″ 03′ 30″ W. We

worked up with the wind dead against us, that we might get as near as possible to the shore; and about five in the afternoon we were within nine or ten miles, at which distance we could find no bottom with a line of a hundred fathoms. The northernmost point of a promontory, of a tolerable height, and which had a kind of dent in the centre of it, bore at that time due east; and E. S. E. of us was a deep bight. The coast, as far as the eye could reach, trended towards the S. W. consisting of a tolerably high land surmounted by two hills. The highest, of a conical form, bore S. E. 16°, the other due south of us. A range of very high hills, lying far inland, stretched from the S. W. towards the N. E., and must have been at least twenty miles beyond the bight and promontory just mentioned. Our distance from the latter was not more than ten miles, and the air, although not clear, was much more so than to the southward; yet the north point of the promontory evidently appeared as cut off from the rest of the land, and the chain of hills inland disappeared entirely behind it. This made me believe that the headland was an island, and probably that which bears in the charts the name of Oki, and of which the latitude agreed pretty well with this, although I had reason to believe that Oki had been much larger, while the length of the one we saw could not have been more than ten miles in a N. E. and S. W. direction.

The high round hill which I have called after the celebrated astronomer the Baron von Zach, lies in 35° 25′ 20″ N. and 227° 40′ W.; the middle of the bay or bight in 35° 32′. In this bay we saw a number of boats, which all directed their course towards the channel that separates the island from the main,

and which, probably alarmed at the appearance of an European ship, hastened to give information of it to their government. At a short distance from the south point of the promontory there is, within the bay, a small island, but the coast appeared clear from rocks and shelves; and had the weather been fine, we should infallibly have removed all doubt with respect to the nature of this promontory.

During the night we continued our course under easy sail to the northward. At day-break we perceived the land bearing E. N. E. and I immediately stood in towards it: the wind, however, did not permit us to lay a better course than S. E. by E. About eight, the land that we had seen the day before, and which I had taken for an island, appeared bearing S. E. 18°; but the weather was at this time so foggy and thick that I thought it more advisable to follow the coast towards the northward, more land appearing successively in that direction. This coast presented a constant change of high craggy hills and abrupt valleys. The most remarkable point was a conical hill, lying, according to our observations, in latitude 36° 06′ and longitude 227° 09′. At noon it bore due east, and the northernmost land we could distinguish, N. E. 82°. At six o'clock we lost sight of it entirely, the coast probably taking from the extreme northern point, which lies in 36° 14′ and 217° 10′, and which at six o'clock bore S. E. by E. $\frac{1}{2}$ E., a very decided easterly direction, and the wind not allowing us to hold a better course than N. and N. by E. During this run the lead had frequently been hove, but we could never strike the ground with a line of a hundred fathoms.

Future navigators with whom it may be a principal object to examine the west coast of Japan, must decide upon the situation of Oki. I had expressed an opinion that the land seen the preceding day to the northward of the bay might be this island, yet the smallness of its size immediately raised doubts in my mind; and I now believe what we saw on the 22d April between 35° 15 and 35° 45′ was a part of Nipon, while the land we perceived the next day between 36° 01′ and 36° 14′ was either Oki or one of the small islands, by which, according to the old charts of Japan, that of Oki is surrounded *. Whether the land we saw was part of Nipon or the island of Oki, the astronomical position of these points between the thirty-fifth and thirty-sixth degree of latitude will greatly facilitate the determination of the western boundaries of this kingdom, which, though it has been known these three hundred years, is still unexamined; and from the circumstance of our seeing this land, must be above a hundred miles greater in extent than it is laid down in Arrowsmith's chart, in which navigators justly repose the greatest confidence. The same reason must render the Japanese sea much narrower between the thirty-fifth and thirty-sixth degree of latitude.

After losing sight of the land I continued my course towards

* Those who would find fault with me for not having decided this doubtful point, I refer to the plan I had laid down for my observations on this voyage, and particularly to the circumstances which prevented my approaching the west coast of Japan. It was only owing to the very incorrect charts of this coast that we saw the land between the thirty-fifth and thirty-sixth degrees of latitude, believing at the time our distance to have been a hundred and fifty miles from it, and it is much to be lamented, that in the two days during which we remained upon this coast, the weather was so extremely unfavourable to us.

the N. E. but as the wind constantly blew from that quarter and from E. N. E. our progress was very trifling. On the 26th April in 37° 43′ N. and 226° 30′ W. we had very fine clear weather and a calm sea; of these we availed ourselves to make several observations with two compasses of the variation of the needle, which was from 2° 09′ 40″ to 3° 41′ 30″; the mean is therefore 2° 58′ west. In preparing my chart of the Japanese sea, I have, however, made no remarks on the variation of the compass, finding it one moment one or two degrees east, and at another time as much west; and this was not only the case here, but likewise along the whole coast of Jesso. La Perouse also found the same trifling variation during his voyage in this sea; and in latitude 29° 30′ and longitude 224° 40′, he, like ourselves, found the variation only a few minutes west. This coincidence is certainly accidental, but it proves, as do all the observations made in these parts between thirty and fifty degrees of latitude, that the variation of the needle must be extremely trifling.

In the evening of the 27th of April in latitude 38° 33′ and longitude 226° 12′ we observed a violent breaking of the sea; we sounded repeatedly, but were unable to find any bottom with a line of a hundred fathoms. The ship's way, although the wind was very fresh, and the sea perfectly calm, was, at the most, two knots, and she frequently refused to answer the helm. This comparatively slow advance, and the difficulty of steering, could only be ascribed to a violent current. It rained very much, the weather was gloomy, without being threatening, though the barometer seemed to announce a storm, having fallen to twenty-nine inches two lines. I accordingly

took the necessary steps for the night, but to no purpose, for the next morning we had clear weather. La Perouse likewise mentions the great depression of the barometer in these seas, without any storm ensuing, and indeed pretty nearly in the same longitude and latitude in which we observed this phenomenon. It would certainly be curious to ascertain by a variety of observations, whether the barometer in these parts, as well as in the vicinity of cape Horn, is always in this depressed state; La Perouse, as well as ourselves, having experienced it here in so remarkable a manner, and we again observing it so in the sea of Ochotzk and near the Kuriles; or whether this depression is to be ascribed to an accidental similarity in the atmosphere. On the day of our departure from Nangasaky, the air was thick and foggy, with violent rain and a heavy storm, when the barometer only fell to twenty-nine inches. This depression increased daily, though almost imperceptibly, during a whole week, and yet we had afterwards the finest weather.

I have already mentioned that I was not allowed to visit the west coast of Japan; but from the thirty-ninth degree of latitude I might have commenced my examination without incurring the suspicion of breaking my word, the situation of the straits of Sangar being in fact so uncertain that I might just as well have found it a degree to the southward as I did one to the north of what I expected. On the 30th April I had an observation in latitude 39° 22′, and therefore steered due east, in order to reach the parallel of 39°; the current for some days past having set to the south-west. It was now, however, north-east, and instead of finding the land in latitude 39°, to my no small mortification, we met with it, by steering an east course, in 39° 40′.

On the 1st May we perceived it bearing E. N. E. at the distance of about eighteen or twenty miles: it had quite the appearance of an island, and I had no doubt of its being that of Iwo-sima, laid down in the charts nearly in 39° between cape Sangar and Jacata bay; but the next day we were convinced that it was no island, but a promontory projecting very much to the west, and distinguishable by a high mountain with a rounded summit lying in the centre of it. This promontory is about thirty-five miles in circumference, and in 39° 50′ 00″ N. and 220° 16′ 00″ W.; this, at least, is the situation of the mountain, which is quite in its centre, and of which the sides gradually slope down in all directions. The south point lies in 39° 46′; the N. E. in 40° 00′. This remarkable headland I have called the Russian's promontory. Its southern side is invariably hilly, consisting of a row of projecting points of land. The shores are steep cliffs, and a rock of considerable size, having another near it, is particularly conspicuous at a small distance from the shore. The northern side of this cape forms a large bay, and the land on its south side falls away very much to the east, which gives it the appearance of an island, as on the first day we conceived it to be; nor were we convinced of the contrary, until by sailing into the bay we clearly distinguished its connection with the land behind it: it may, however, be separated from it by a very narrow channel.

The strong currents in the vicinity of this promontory rendered an accurate determination of the latitude of its different points almost impossible, nor could we succeed in making a correct drawing of the coast, as we could not bring the points to agree. If the latitude could be ascertained every hour with that precision

with which we can determine the longitude by means of a chronometer, when an error of a few minutes in the former has no great effect upon the latter, we might then bid defiance to the strongest currents in surveying any coast; but so long as it continues a doubtful problem how to obtain the geographical latitude by observation as often as is desirable, or at least as often as can be done with respect to the longitude, we must not expect to be able to take a very accurate survey of any coast while in the act of sailing by it.

On the 1st May, at two in the afternoon, we had approached within five miles of the shore, at which distance we had no soundings with a line of seventy fathoms. On the west side of the promontory we observed a waterfall, and on the N. W. a bight, that appeared to offer complete shelter to any ships which might anchor in it. A vast number of craft was sailing about in the vicinity of the land; but in no place could we discover any houses. Owing to the thick weather, we could not distinguish the continuation of the land from the Russian's promontory; but from the direction of the clouds, it appeared most probably due south. The variation of the compass in a mean of the observations made on the morning and afternoon of this day was found to be 0° 04′ 30″ W.

The clear weather on the next day very much favoured our examination of this part of the coast of Japan; and more particularly our search for the straits of Sangar. I sailed along the shore, keeping as close in as possible. The land behind the northern point of the Russian's promontory, which is low, and ends to the eastward in a long line of rocks, falls short off in

the latter direction, and forms a large bay. Here we fancied that we perceived an inlet: and in the hopes of its proving to be the straits of Sangar, which we looked for almost in every creek, I immediately steered towards it; but we found that all the land hung pretty well together, and in the back-ground perceived lofty hills stretching north and south. At seven in the morning we were at the utmost four miles from the shore, and had soundings with a line of fifty-five fathoms over a bottom of clay mixed with small stones.

In latitude 40° 50′ and longitude 219° 54′ we perceived a town, with a port and several vessels lying at anchor; the valley in which it was built appeared in the highest degree cultivated. Corn-fields, meadows in which a considerable quantity of cattle were grazing, and groups of trees, apparently more the work of art than of nature, beautified this district. The shore was throughout sandy, and a heavy surf seemed to render landing very difficult here, except in a small spot which looked like the mouth of a river, where the little flotilla lay at anchor. This opinion was confirmed by the course of a vessel which we had seen all the morning sailing towards this place, and which made a considerable tour northward in order to fetch into the harbour. At the distance of about three miles from the shore we found a depth of twenty-five fathoms over a bottom of hard clay and sand. In addition to this little town we perceived several groups of houses scattered along the shore, probably the abode of fishermen. A number of whales were sporting around the ship. A line of very high mountains covered with snow ran northwards from the valley, terminating in a broken point of land, bearing about two o'clock in the afternoon due north of

us; and as no other land appeared behind this, we felt pretty confident, although it did not prove so, of its being cape Sangar. Towards this promontory we steered with a moderate breeze; the clear weather allowing us to take some lunar distances for the determination or rather confirmation of the longitude given by our timepieces. Six sets gave in the mean 220° 00′ W. No. 128 at the same time was 220° 11′ 45″; the true longitude was 220° 11′ 15″; by the ship's reckoning it was = 219° 52′.

About five o'clock four large boats put off from the town, which then bore S. E. and rowed towards us in the greatest hurry. The number of people, of whom there were twenty-five or thirty in each boat, rendered their intention rather suspicious; but though it was scarcely probable that they could be hostile, considering the well-known strictness of the Japanese government, still I thought it prudent to load the guns and put the soldiers under arms. By six o'clock they overtook us: we called to them in Japanese, requesting they would come on board; but of this they appeared afraid. After having sailed twice round the ship, and considered it with the greatest attention, they hauled up their sails, and returned towards the town. The governor of the place had in all probability sent them off to observe our ship, his curiosity having been excited by its appearance, as it was undoubtedly the first European vessel ever seen on this coast of Japan, and perhaps he fancied that he could infer our intentions from our manœuvres. These boats were rowed according to the European fashion, not by the alternate sidling movement of the men as in Nangasaky and on the north parts of Japan;

a circumstance which induced us to believe that their crews consisted of Corean pirates*.

Towards sun-set we had a distinct view of the whole coast, from which we were not more than three or four miles distant. The snowtopt mountains ending in a point of land to the northward, and of which the most lofty appeared to belong to a chain farther inland; the beautiful valleys in the vicinity of the town; and the high hills to the southward, rendered the scene truly picturesque; nor was it a little improved by the clear atmosphere and mild air with which we worked the ship under easy sail throughout the night. On the 3d May at day-break we set all sail and steered along the coast. Its direction here was N $\frac{1}{2}$ W. the same as the chain of mountains which we had seen on the preceding day. A headland of tolerable height advanced considerably towards the west, and, like the Russian's promontory, bore the appearance of an island; but the vicinity in which we were to the land convinced us that it joined on to the main. This headland, the middle of which lies in latitude 40° 37′ 40″, and longitude 220° 11′ 30″, I have called cape Gamally, after my worthy friend the general of that name, and inspector of the corps of marine cadets. It forms a very remarkable point on

* Upon our arrival in Kamtschatka I was informed by the native of Japan whom we had left there, that there is on the west side of Japan, not far from the straits of Sangar, a small town inhabited by pirates. It is probable that the one we saw was the same, and that the four boats which came off us had the intention of robbing us, from which they were deterred by the size of the ship, a larger one perhaps than they had ever seen before.

this coast, and assumes a different direction, first N. E. and then E. N. E. in which I followed it for some distance, in the momentary expectation of finding the entrance to the straits of Sangar. Here we saw a remarkably high mountain of a circular form, entirely covered with snow. This, to which I have assigned the name of peak Tilesius, after the naturalist of our ship, is in 40° 40′ 40″ N. and 219° 49′ W. My hopes, in consequence of the easterly direction of the coast, of being within the entrance of the straits of Sangar, soon vanished; for we began to distinguish land to the northward, connected with that to the east, and forming a large bay, whose northern point was a very far projecting promontory, which we perceived about eleven o'clock. Towards this I shaped my course, after we were convinced that there was no inlet to the bay. Precisely at fifty-four minutes after the culmination of the sun it bore east of us, at a distance at the farthest of three or four miles: as we had a very good observation at noon, the situation of this cape was most accurately determined, and is 41° 9′ 15″ N. and 219° 52′ 00″ W. It appears like a craggy, abrupt mass of naked rocks of a yellow colour, hanging on to a chain of lofty snowtopt mountains. To this promontory I have given the name of Greig.

From cape Greig the coast again assumed a N. E. direction as far as another promontory, and then due east. The appearance of lofty snowtopt mountains to the N. N. W. which likewise followed an easterly direction, convinced us that these belonged to Jesso or Matzumay, and that here must be the straits of Sangar, as we shortly afterwards found to be the case. The cape on the point of Nipon, from whence the coast takes an easterly direction, is cape Sangar. In Jesso, lying due north of

this, is another promontory, which I named Nadeshda after my ship, and from whence the south coast of this island likewise assumes an easterly direction. These are, therefore, the two promontories that form the western entrance of the straits of Sangar, and of which cape Sangar lies in latitude 41° 16′ 30″ and longitude 219° 46′, and cape Nadeshda in 41° 25′ 10″ and 219° 50′ 30″, so that the width of the western entrance of these celebrated straits is only nine miles, instead of a hundred and ten, as laid down in some charts *. In front of cape Nadeshda are several rocks, upon which the waves broke with considerable violence.

In the year 1802 there appeared in St. Petersburg a chart of the Russian discoveries in the north-eastern parts of the Great ocean, published under the superintendance of the learned engineer General V. Suchtelen of the depot of charts. In this the west coast of Jesso was laid down, for the first time, with con-

* La Perouse has adopted this great width of the straits of Sangar after the Dutch captain Vries, although it is much more correctly laid down in earlier charts. In Scheuchzer's map of Japan, for instance, it is only fifteen miles, and in the French chart of the discoveries of the Russians, which the late minister of commerce, H. V. Soimonoff, published at St. Petersburg in 1787, it is not more than ten. H. V. Soimonoff probably followed the authority of Krascheninikoff, who sets down twenty wersts as the width of the straits. And even before the voyage of captain Broughton, to whom we owe the first probable account of the width of these straits, Buache had already stated his disbelief of its being a hundred and ten miles in his memoir "sur les terres decouvertes par La Perouse," and Arrowsmith had reduced it very considerably in his chart of Asia. Broughton has laid down the width between the capes Sangar and that I have called Nadeshda sixteen miles. I have only made it nine, and in Broughton's chart the islands O-sima and Ko-sima are entirely omitted.

siderable accuracy; in all former charts, as it had never been visited by any European navigator, it had been merely marked out with a dotted line. But what particularly distinguishes this chart is an island between Jesso and Sachalin, called Karafuto, or Schischa. The west coast of Jesso, as well as this island, were inserted on the authority of a Japanese chart, which the Japanese *Koday*, whom Laxman conveyed back to his country in 1782 by order of the Empress Catharine, had brought with him to Russia. This Karafuto, the existence of which I was particularly anxious to ascertain, induced me not to pass through the straits of Sangar, whose western entrance alone I wished to determine; but rather to examine the west coast of Jesso, and to get into the sea of Ochotzk by the strait which separates Karafuto from Jesso.

The proving of the chart in this manner was very much to its advantage; for although it described the western entrance of the straits of Sangar three-fourths of a degree too much to the southward, we nevertheless discovered the two islands O-sima and Ko-sima, which are both nearly opposite the straits of Sangar, and are described in this chart. From this circumstance we conceived hopes of finding, likewise, the new island of Karafuto to the north of Jesso.

At four in the afternoon we were nearly opposite the middle of the straits of Sangar, in which, even from the mast-head, we were unable to perceive any land; but on both sides, to the eastward of cape Sangar and cape Nadeshda, were several promontories. In Jesso we could distinguish a promontory, bearing N. N. W. which, in the chart of the Russian discoveries above

alluded to, bears the name of Sineko*. From cape Sineko, in 41° 38′ 30″ N. and 226° 06′ 30″ W. several rocks extend into the sea, being, probably, connected under water with a small island which lies in the same direction as these rocks in front of the cape. The line of coast from cape Nadeshda to cape Sineko is N. W. the distance between the two being eighteen miles. Between these, in a large but open bay, is the town of Matzumay, whose name the Japanese have extended to the whole island of Jesso: it is of considerable size, and the residence of the governor; but is, we were told, the only town of any magnitude in the whole island. Several vessels lay at anchor near the shore, and there were others on the stocks; yet the want of a safe bay must be a great drawback to its commerce. As the wind prevented our doubling cape Sineko, we stood in till within three miles of the town, at which distance we found a rocky bottom with ninety fathoms water. By our observations the town of Matzumay lies in latitude 41° 32′, and longitude 219° 56′. Towards evening the wind was very moderate, and we were exposed to the whole force of the current, which drove the ship in an eastward direction towards the straits of Sangar, until a fresher breeze from the northward enabled us to stand off the land.

There is a striking contrast between the southern coast of Jesso and Japan. Even in the vicinity of the former we saw no plantations or corn fields, such as appear every where in

* I have retained this as well as all the names in that chart, and which are probably the original ones.

Japan, where even the hills are cultivated to their very summits. Of this the northern parts alone bear any resemblance to its rougher neighbour: the same chain of snowtopt mountains which intersect the whole of Jesso from north to south, appears in a similar direction in the north-west part of Japan; and, with the exception of the valley, and the small town we passed on the 2d May, they bear alike the same unfruitful appearance; even Japanese industry being apparently unable to effect any thing here. It is probable that these two islands have been torn asunder by some such violent revolution as is supposed to have separated England from France, Gibraltar from Africa, and Sicily from the main land of Italy. The narrowness of the channel that divides Japan from Jesso; the high cliffs; the same number of capes on both sides, as far as we could distinguish, and whose situation appeared to me to agree in a manner that plainly denoted such a separation; the similar direction of the lofty chain of mountains, apparently only interrupted by the channel, and the vicinity of the lofty peak Tilesius, which bore all the symptoms and the figure of an extinguished, or perhaps still burning volcano, and from whence, probably, the subterraneous fire first broke forth that occasioned this violent revolution; all these circumstances seem to strengthen this opinion, and the more so as the north of Japan is well known to be subject to frequent and terrible earthquakes. The first voyage through these famous straits, in which the position, nature of the soil, and productions of the two coasts may be examined, will decide whether my ideas are well founded or incorrect.

The wind blew pretty fresh at W. N. W., and enabled us on the 4th at day-break to continue our course to the northward.

We sailed between the two islands O-sima and Ko-sima, and at a distance of not more than three miles from the first or western-most one, where we had no soundings with a line of a hundred fathoms. Both islands are mostly black barren rocks of a volcanic nature. O-sima, lying in latitude 41° 31′ 30″ and longitude 220° 40′ 45″, is of a circular form, and about six miles in circumference. We could clearly perceive smoke issuing from its summit, which bore the appearance of a crater, and the winding course of the lava stream on the sides of the mountain convinced Dr. Tilesius that an eruption had taken place, perhaps only a few years before. Ko-sima, in 41° 21′ 30″ and 220° 14′ 00″, is of a longer form, and may be sixty miles in circumference: to the northward of it, at some distance, lies a pretty high rock: the direction of these two islands is N. W. and S. E. 64, and the channel between them twenty miles wide.

It is impossible to miss the western entrance of the straits of Sangar, even though the thickness of the weather should have prevented any observation. Coming from the southward, the first striking object is peak Tilesius, which stands very distinct from the other mountains that surround it, and cannot fail to be known by its pyramidical form, its height, and by its being covered with eternal snow; and cape Greig, from whence the coast as far as cape Sangar trends N. E. by N. nine miles, is equally remarkable for its colour and form. But approaching from the northward, the two islands of O-sima and Ko-sima are the best pointers; after these peak Tilesius and cape Greig. The passage between these two islands is perfectly secure. Ko-sima lies exactly fronting the middle of the strait; but great attention must be paid to the current, the rapidity of which increases

the nearer you approach the straits. The south-west coast of Jesso, the town of Matsumay, and cape Nadeshda, are likewise objects that cannot easily be mistaken.

A little before noon we perceived the island that bears the name of Okosir* in the chart of the Russian discoveries, and in a north-east direction from this island a high promontory there called Oota-Nizawu. By five o'clock we were about eight miles from Okosir. The extreme length of this island, the middle of which is in latitude 42° 09′, and longitude 220° 30′, is eleven miles in a N. N. E. $\frac{3}{4}$ E. and S. S. W. $\frac{3}{4}$ W. direction, and its greatest breadth about five. It appeared to be uninhabited, for we could distinguish nothing on it but thick woods covering the island from one extremity to the other. At a short distance from its N. E. point, and towards the east, is a chain of black rocks, forming, if I may use the expression, an island of themselves, and apparently rendering the passage between Okosir and cape Oota-Nizawu, although eleven miles wide, if not impracticable, at least dangerous†. On the south point of the island there is also a high rock, of a pyramidal form, and its west coast is, in like manner, beset with rocks.

Cape Oota-Nizawu, according to our observations, is in lati-

* This island in Scheuchzer's chart is called Kubite-sima; this is probably the Japanese name, Okosir on the contrary the original name given to it by the Ainos, or inhabitants of Jesso. From the termination in *Shery* of the names of several islands near Jesso Rifunshery, Rioshery for instance, the more correct name of this is probably Oko-shery.

† Captain Broughton found the passage perfectly safe.

tude 42° 18′ 10″, and longitude 220° 14′ 00″, and forty miles N. W. 8° from cape Sineko. The wind being due west and blowing pretty fresh, and the necessity of sailing to the southward of Okosir, prevented our examining this part of Jesso with any degree of accuracy; but as the weather was very clear, no point of the land, notwithstanding the distance, escaped us, and it appeared here to be perfectly flat, with the exception of the snowtopt mountains I have mentioned as being very far inland, having neither deep bays nor projecting headlands. As the wind fell towards evening, we did not lose sight of Okosir all night. On the 5th, at day-break, we distinguished a projecting land bearing N. by E. of cape Oota-Nizawu, and forming with that a very deep bay, the direction of which seemed to be easterly. On the north side of this bay, the west point of which is cape Luzuky, as I find by the Russian chart, although the bay which I have called after Vice-Admiral Golenischeff Kutusoff is not there, I conceive there may be a good harbour. To the north of the abovementioned promontory is another large bay, stretching at least twenty miles inland, in a S. E. direction. These two bays give to the land between them the appearance of an island, or rather of a peninsula, not unlike the Russians promontory on the north-west coast of Nipon. This promontory is fifteen miles in length, in a north and south direction, and in the middle of it there is a very high hill. I have honoured it with the name of the deceased Admiral Kutusoff, so much distinguished by the length as well as utility of his services. It lies in 42° 38′ N. and 219° 59′ W. To the large bay on the north side of this promontory I have given the name of General Suchtelen. Its northern point is what the Japanese, or rather the native in-

habitants of Jesso, call cape Rayten; it projects very much, and is in 42° 57′ and 219° 44′, about five miles from north to south, which makes the width of Suchtelen bay between these two outermost capes sixteen miles.

We sailed with the clearest possible weather at so trifling a distance from this coast, one of the most remarkable from the number of bays and promontories that is hitherto known, that nothing could escape us. To the north of cape Rayten is another promontory, the proper name of which is Okamuy; and between these two is another bay of less extent than those of Suchtelen and Kutusoff. From cape Okamuy the land first takes a N. N. E. then a N. E. and lastly an east direction, as far as another cape, which (in order to preserve the proper names given in the beforementioned chart,) must be cape Taka-sima, although we could not find out the bay described as being between them. From the latter the land suddenly assumes a south-east direction, and we saw at a great distance a high mountainous country towards the N. N E. which likewise appeared to incline towards the eastward. Here was, therefore, a deep gulf running in an easterly direction, and as no land was to be seen in very clear weather from the mast-head, nothing was more natural than the idea that this was the passage between the island Karafuto and Jesso. I accordingly held an E. S. E. course towards the eastern promontory, or Taka-sima: the wind was fresh at N. W., and I hoped before evening to obtain some positive information with respect to it; we were scarcely in this supposed strait when about noon it fell calm, and continued so until evening. We had an observation in 43° 30′ 37″ N. and 219° 36′ 00″ W. The nearest land was a low headland bearing east at the distance of seven

or eight miles, and we had no soundings with a line of a hundred and sixty fathoms.

Capes Okamuy and Taka-sima, and a third which is between them, are part of a mountainous neck of land stretching about twenty miles into the sea, and about sixteen miles in a north and south direction: on both sides are deep bays. This remarkable promontory I have named cape Nowosilzoff, in honour of the president of the Academy of Sciences. Cape Okamuy, its southernmost point, lies in latitude 43° 11′ 00″, and longitude 219° 46′ 30″, the middle cape in 43° 14′ 30″ N. and 219° 34′ 30″ W.; and Taka-sima, which is the southern point of the great bay that we mistook for a strait, in 43° 21′ 15″, and 219° 29′ 00″. All the three points of this promontory are surrounded by rocks, and that of Taka-sima is particularly distinguishable by one bearing the exact appearance of a ship under sail.

The north-east as well as the south-west coasts of this gulf consist of mountains covered with snow, and at the same time overgrown with trees of considerable magnitude. The lofty chain of mountains inland is probably never free from snow: the lower ones lying nearer the shore appeared to be very little broken by valleys. In no place could we distinguish any traces of cultivation, although this district is not uninhabited; for upon a low spot near Taka-sima, that was in like manner overgrown with very thick woods, we could perceive smoke in several places, and some fires were burnt during the night. Not far from this promontory, the north point of the gulf, is a peak of no very considerable height, at the foot of a lofty mountain, but which, owing to its form, is a very remarkable feature in this bay. It lies in 43° 40′ 00″ N. and 218° 24′ 00″ W. Near it is

another of still less elevation. On the south side of the gulf two points of land projected, forming small bights: between them is an abrupt hill, which incloses a deep hollow in the nearest chain of mountains: the first point lies in latitude 43° 09′, and longitude 219° 15′ 30″, and the other in 43° 07′ 30″ N. and 218° 50′ 00″ W.

As the wind still continued from the south-east, we were forced to tack in order to penetrate deeper into the bay, through which I still hoped to be able to find a passage. The lead was kept going, but we had no sounding with a line of a hundred and fifty fathoms. A particularly high mountain, raising its head considerably above those surrounding it, and whose summit is rather flat than otherwise, now appeared bearing S. S. E. This mountain, which has obtained the name of the astronomer Rumoffsky, of the Academy of Sciences, lies in 42° 50′ 15″, and 218° 48′ 30″, and still farther inland we distinguished on the same side of the bay a mountain of a conical form and very striking appearance; from another more to the northward we perceived smoke and flames to issue, but were unable to distinguish the crater of this burning volcano.

On the 7th May a gentle breeze sprang up at S. W. with which we proceeded under all sail deeper into the bay. At length, with a hundred fathoms we found a bottom, the depth gradually diminishing. At eight o'clock in the morning, with a very bright sky and clear horizon, we perceived, to our no small disappointment, the land closing more and more towards the S. E., so that there now appeared but a very narrow passage. This discovery almost entirely frustrated my hopes; I continued, however, my

course towards the S. E. until at length we could distinguish the perfect junction of the very flat coast in that direction; our depth at the same time was thirty-three fathoms over a bottom of fine grey sand. The water here having a less brackish taste, and its specific gravity being much less than that of the sea, it is probable that at the extremity of the bay there may be some large river; and this supposition was rendered still more striking by the number of pieces of wood which floated by the ship. After being quite convinced that we were only in a large bay, at half past ten I put the ship about, and held my course towards the north point of the gulf, which I have called after the unfortunate Spanish navigator Malespina. This cape, according to our observations, is in 45° 42′ 15″ N. and 228° 41′ 30″ W. Although I was disappointed in my hopes of finding a passage, I could not regret the three days we had spent in exploring this bay; and I should have continued my examination, even after we were convinced of its being one, quite to its extremity, had not the wind veered to the N. W. which would have prevented our getting into the open sea in several days. This great bay is sixty miles deep in a N. W. and S. E. direction, and between capes Nowosilzoff and Malespina, which lie N. E. b. E. and S. W. b. W. opposite to each other, forty-two miles across, and I have called it gulf Strogonoff, in honour of the president of the Academy of Arts.

During the greater part of the day in which we sailed out of the gulf the weather was foggy and calm; towards night a gentle breeze sprang up, and as the current set very strong to the N. E. side of the gulf, we were compelled to steer N. W. On the 8th at day-break I resumed my course towards the land, and we

soon distinguished the high mountains behind cape Malespina, and the continuation of the coast towards the north. This again formed a great bay from cape Malespina, the north-west point of which, in latitude 44° 25′, and longitude 218° 28′, I have called cape Schischkoff, in honour of the meritorious vice-admiral of that name. The land in the bay is much the lowest we had hitherto seen in Jesso, which chiefly consisted of uninterrupted chains of lofty snowtopt mountains without the slightest variety; and the only distinguishable points in this bay were a single mountain of tolerable height, in 44° 00′ N. and 218° 06′ W. and a low headland. To this I have assigned the name of the celebrated Pallas.

At ten o'clock we saw the two islands which bear the names of Jeurire and Janikesseri in the chart of the Russian discoveries, the first bearing N. E. 25°, the other N. E. 10°. They lie nearly west of cape Schischkoff, and are both scarcely more than rocks. The greatest length of each of them is about four miles, and its width about half the length. The eastward one, Janikesseri, is very low, the other rather more elevated, and has a rock at its southern point, and a reef on the east side, upon which the sea broke with force. Upon this latter island we could distinguish some brushwood, but upon the other nothing at all. Their situation with respect to each other is nearly east and west. Jeurire lies in 44° 27′ 45″, and 218° 43′ 15″; Janikesseri in 44° 28′ 45″ N. and 218° 37′ 45″ W., ten miles distant from cape Schischkoff.

We sailed round these islands with a strong S. W. wind, after which I again shaped my course towards the S. E., as it was possible the islands might have prevented my perceiving any inlet

behind them. But the weather was now so thick and cloudy that our horizon was of very little extent; I therefore approached as near as possible to the shore, and about eight in the evening we were at the utmost only three miles from it. The depth here was twenty-eight fathoms, over a bottom of fine sand; the beach was low, and almost entirely sandy; farther inland were seen lofty mountains. The land stretched from the north towards S. b. E., but there was no where any appearance of a passage. Some persons on board fancied they perceived a deep inlet towards N. E. b. E., and I directed my course thither; but this disappeared upon a nearer approach. We tacked throughout the night, and the next day, as I was unwilling to quit this part of the coast until I had again thoroughly examined it; however it was entirely concealed from us by a thick fog until eleven o'clock in the forenoon. The vicinity in which we now stood to the coast enabled us to see between the islands and the main, and to remove every doubt entertained the preceding day with respect to a passage; I nevertheless conceived it necessary to steer to the S. E. until we distinctly saw cape Schischkoff, and the uninterrupted line of coast as far as cape Malespina. At the same time we perceived to the N. W. b. N. a high mountain entirely covered with snow, which must have been upon some island, and the next day we ascertained it to be what La Perouse has named the Pik de Langle*. I now altered my course from S. E. to N. between the coast of Jesso and this pik.

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* The Pik de Langle, as it is called by La Perouse, is probably the same as that the Dutch call Blydeberg.

I have been, perhaps, too circumstantial in my account of this navigation; but as by our latitude the passage between the island of Karafuto and Jesso ought to have been nearly in this place, I conceived it necessary to give the most accurate description of the coast, in order to convince those who might believe in such a passage, that it could not have escaped us had it been really here. We now sailed parallel with the coast, the direction of which is N. b. W. at a distance of three or four miles from the land, and soon distinguished the north point of Jesso, bearing N. half W. The depth was almost constantly from twenty-five to thirty fathoms, and the bottom a fine sand. During the night we stood off and on under easy sail; and on the 10th at day-break continued our course to the northward along the coast, from which we were never at a greater distance than three miles, in order that no point of it might escape us. I had already given up all hope of finding the strait, as I now conceived it probable that the Japanese, of whose want of geographical knowledge I had frequent reason to be convinced, should look upon Sachalin as a small island, and lay it down as such in their charts opposite to Jesso; and in none of their charts is there any island to the north of Karafuto *.

The northern part of Jesso has many advantages over that to the southward. The land is low to a considerable distance from the sea, where the snow mountains commence, and entirely in-

* In European charts, those of Danville, Roberts, and some others, for instance, Sachalin is likewise laid down as a small island.

tersect the whole island from north to south; it is covered with wood, and apparently not ill cultivated. The shores are, for the most part, craggy, in some places rocky, and sandy in others. This part has, besides, an even appearance, and offered as little variety as the coast of snowtopt mountains of the south of Jesso, which we rarely saw disengaged from the clouds. But even here, the most fruitful part of Jesso, no traces of a dwelling were to be seen, except at the northernmost point, where we found a few fishermen's huts.

At seven in the morning the land, on which the peak de Langle is situated, bore due west, distant about twelve miles, but only upon one single occasion could we distinguish its base. As we approached the north point of Jesso we perceived that a long narrow neck of land projected from it to the N. W. with several huts upon it, and we could see, quite at its extremity, a high pole with a bundle of straw attached to it. This tongue of land must be dangerous at night, being very low, and stretching out nearly a mile into the sea. We could no longer perceive land to the northward, and being at this time at the extremity of Jesso, consequently at the southern end of the straits of La Perouse, all our hopes of finding a new strait were henceforward at an end. As soon as we had doubled the long tongue of land I steered E. S. E. along the coast in search of a convenient anchorage, having proposed to myself to spend some days in acquiring a little information of this hitherto unknown part of the world, and to give our naturalists the opportunity they had long been obliged to forego, of increasing their collections. At ten we perceived a large bay entirely open to the northward, but as it afforded a very good anchorage, I brought

to in a small bight to the southward in ten fathoms, over a bottom of fine sand and clay, about two miles from the nearest land. The north point of Jesso, which, as well as the whole bay, I have named cape Romanzoff, and Romanzoff bay, in honour of Count Nicholas Romanzoff, the minister of commerce, and chancellor of the empire, bore N. W. 68°, and the east point of the bay, which the natives call Laya, bore N. E. 60°. The fog prevented our seeing the opposite coast of Sachalin, nor could we as yet distinguish the island which lies to the northward of the peak de Langle.

CHAPTER II.

STAY ON THE NORTH POINT OF JESSO, AND IN ANIWA BAY.

Lateness of the Spring in the North of Jesso—We find here a Japanese Officer and several Merchants of that Nation—Remarks upon the Geography of these Parts—Upon the Names of Jesso, Matsumay, Insu, Oku Jesso, and Sachalin—Description of Romanzoff Bay—Peak de Langle—We sail to Aniwa Bay—Anchor in Salmon Bay—Japanese Factory in Aniwa Bay—Proposal for an European Establishment in this Bay—Advantages which such an Establishment promises to Commerce—Facility of taking Possession of Aniwa—Defence of this apparently violent Measure—Description of the Ainos—Their physical and moral qualities—Modesty of the Women—Their Dress—Ornaments, Houses, and Utensils—Food—Government—Population—Refutation of the Story of the Ainos being covered with Hair.

Before we had weathered the long point of land which I have mentioned in the preceding chapter, we perceived a boat with four of the natives rowing off to us. They continued about a quarter of an hour alongside the ship, but could not be prevailed upon to come on board, and at length returned. However, we had scarcely cast anchor when several of them paid us a visit, who immediately came on board without the least signs of fear. As they came on deck they fell on their knees, laid their two hands on their heads, passing them down their faces and their bodies, at the same time that they made a low bow. I presented them with a few trifles, which appeared

to cause them great satisfaction, and I ordered them some biscuit and brandy; but they seemed to have no taste for the latter, and it is probable that they are unacquainted with the use of strong liquors. One of them brought a boat-load of herrings, of an excellent quality, which were sufficient for the dinner of both officers and crew. About two o'clock I went on shore with most of my officers, and we were not a little surprised to find in the middle of the month of May, and in a country so much to the southward, scarcely any appearance of spring: in several places the snow lay very deep, the trees were as yet without leaves, and nothing was green except a few wild leeks and some samphire. On our arrival in Kamtschatka about three weeks after this we found the season much more advanced; and even at this time of the year it would be more so there, for Captain King states, that in the middle of May a sufficient supply of garlic and nettles was collected daily for his crew; and with regard to the western provinces of Russia, even at Archangel, which is eighteen degrees more to the northward than this part of Jesso, so raw a season would not be found in April as here in May. Our hopes, after a six months confinement, during which we had no opportunity to walk, of making amends for it here were entirely baffled; for we could only walk upon the beach on sand and stones, as a few steps from the shore we got either into bogs or snow, or a deep clay, which forced us back to the strand. We met one of the natives, the same who had brought us fish in the morning, with whom we were already acquainted; and we requested him to take us to his house, which he immediately did with the greatest good nature. Here we were received in the best possible manner, and I rewarded their kindness by distributing some

presents among the family. At seven in the evening we returned on board, and the next day the officers of the ship again made a party on shore. I remained behind, because the day preceding, just after I had quitted the ship, several Japanese had been on board, who promised to return again on the morrow.

On the 11th, at nine in the morning, these Japanese arrived with an officer at their head, in a large boat, rowed by the natives of the island. The officer appeared extremely alarmed at our arrival, requesting most earnestly that we would immediately sail from hence; because, as soon as they should learn in Matsumay, whither he must send a report without delay, of our being upon this coast, they would infallibly dispatch a large fleet against us, from which we could expect no mercy. In order to render his threats more impressive, he repeated several times the word *bumm, bumm,* puffing out his cheeks at the same time, whereby he wished clearly to give us to understand with what rigour the Matsumayan squadron would proceed against us. His threats and his intimidating pantomime were so laughable, that we could not restrain ourselves; however, I strove to pacify him by all the means in my power, and assured him, that as soon as the weather, which at the time was very foggy, should clear up, we would certainly take our departure. After I had repeated this promise to him in the most formal manner he appeared easier, and more capable of beginning a fresh conversation, which, by means of the ambassador, who contrived to make himself understood in the Japanese language, passed off very well. My first question was concerning the geography of this part: the name of Kara-

futo could not possibly be unknown here, as it has found a place in the Japanese charts; and as the officer knew very accurately the situation of both Ochotsk and Kamtschatka, I placed some confidence in his knowledge; but I soon found that he owed his acquaintance with these two places rather to the goodness of his memory than to any study, Laxmann, with whom he was personally acquainted, having given him this information. However, from his long residence in the northern parts of Jesso, he could not be ignorant in respect to its general geographical situation; and was perhaps not so much afraid, at this distance from his tyrannical government, to impart to us what he knew as they were in Nangasaky. He therefore confirmed to us the existence of the island of Karafuto, which we distinctly perceived as soon as the weather began to clear up, separated from Jesso by a channel, which, according to his estimate, was about eighteen miles wide; and he mentioned to us another land to the north of Karafuto, which was also separated by a narrow passage from this island. This last he only knew by hearsay, for neither he nor any of his countrymen knew any thing of the northern part of Karafuto, which the natives call Sandan; but he believed that Karafuto was about half the size of Jesso, while on the contrary, the southern part of this island is very well known to the Japanese, since the government reckons it among their possessions, and maintains an officer there as a guard, just as it does here. In further proof of this he pointed out to us in the Japanese charts which I had on board, the harbour where their establishment is; remarking, that it was only on the preceding day that a ship had sailed thither. He mentioned the names of Kunaschir, Ischicotan, Sturup, and Urup, as the four islands which lie to the north-east of Jesso, and form part of the Japanese

empire; and it is nearly by the same names that these islands have been known since Spangenberg's time, without having yet been received into any foreign charts *, and he moreover told me those of several headlands and rivers in Jesso, which I have given in our chart of this island. Most of these names bore a great resemblance to those in the Japanese charts, a sufficient proof to me that I might depend upon his information. The district in which he now resided he called Notzambu; but I could not ascertain whether by this he meant all the northern part of Jesso, or only the northernmost cape, but I fancy the former. A district more to the south he called Soya; the island with the lofty peak (Pik de Langle) he named Rii-schery, and that more to the north Refuni-schery. On the names of Jesso, Oku-Jesso, and Matsumay, I obtained the following information. The original inhabitants of these islands, who are known to us by the name of Kuriles, and hairy Kuriles, are called Ainos, and now inhabit only a very small part of Matsumay, namely, from Notzambu to Atkies; and this part alone is still called by them Jesso; while the Japanese give the name of Matsumay to the whole island. It is probable, that before the Japanese settled here the whole island was inhabited by these Ainos, and by them named Jesso; but in proportion as the possessions of the Japanese increased, the original name gave place to that of Matsumay, which the Japanese had assigned to their principal settlement in this usurped territory; for it is only preserved to

* The existence of the islands Kunaschir, Ischicotan, and Irturup, is so fully confirmed since the expedition of Laxmann in 1792, and of Lieutenants Chwostoff and Davidoff in 1806 and 1807, that no doubt can longer be entertained with regard to them.

that narrow space in which the Japanese have confined the Ainos; and it is too probable, that as soon as they shall have entirely expelled them from the island the name will be completely dropped by the Japanese. In Nangasaky I had already been told that Jesso and Matzumay were the same country. The name of Oku-Jesso, or great Jesso, is also a name proper to the Ainos; and they call the larger island of Sachalin by this name, although the Japanese officer assured me that he understood by it the southern Kuriles, an opinion which I remember to have read elsewhere. Here, as well as in Aniwa bay, I enquired in vain for the names of Chica and Ischoka, by which La Perouse heard the islands of Sachalin and Jesso called, on the west coast of Sachalin. Perhaps the western inhabitants of Sachalin call their island Ischoka, as those to the south call it Karafuto; and that the name of the northern part of Sachalin is called Sandan. Geographers should agree among themselves on a name for these two islands* to the north of Japan, to both of which several might with equal justice be attributed; to the southernmost, for instance, Jesso, Matzumay, or Matmay, and Chica †; and to the northernmost the names of Sachalin, Ischoka, Sandan, Karafuto, and Oku-Jesso. It appears to me that those of Sachalin and Jesso deserve the preference over the others, as being the most ancient and best known to the geographers; and, as far as Jesso is concerned, it has been completely ascertained that this was

* At the time of our stay here we did not know that the northernmost land was not an island but only a peninsula.

† And, since Broughton, that of Insu.

the original name, and it is only the Japanese who have introduced that of Matzumay, endeavouring to suppress the other.

The Japanese discipline exists even here, the farthest boundary of their possessions, in all its force. The officer could in no ways be persuaded to accept a trifling present which the ambassador offered him, and even refused to take a glass of Japanese sakky, their favourite beverage. The purpose of his residence here is to watch over the trade carried on by some merchants of his country with the Ainos, and this appears to be but inconsiderable; the only articles furnished by the latter consisting of dried fish, some coarse kinds of furs, such as fox and wolf skins, which they exchange for pipes and tobacco, household utensils made of lacquered wood, and rice, though I believe the Ainos seldom make use of the latter article, but, like the Kamtschadales, subsist chiefly on fish. As the merchants only remain here during the summer, the officer is allowed, as he informed us, to pass his winter in Matzumay, where his family resides; and this appeared to me very probable, for his house was not much better than that of one of the Ainos, in which the cleanliness and comfort of a Japanese house is not to be found. He told us a great deal about Laxmann, with whom he was personally acquainted, and whom he praised highly; and he spoke several Russian words, which he had acquired of him. After taking a cup of tea he turned the cup downwards, as is done in Russia when a person will drink no more; and as none of us remarked his having done so, he immediately called our attention to it, telling us this was the custom in our country. He began an examination with the few Russian words he knew, to ascertain whether we really came from thence, which for a

long time he seemed to doubt, until he found that we passed our examination perfectly. He thought we were either English or Swedes; and what apparently rendered him so mistrustful, making him believe we were not Russians, was, that we none of us wore tails, Laxmann and his companions having worn their hair in this fashion. This must indeed have been very striking to a Japanese, in whose country, probably during the last thousand years, the hair has been curled day after day in the same manner; and so sudden a revolution as has taken place among us in the last twelve years could not fail of exciting his utmost astonishment. He told us of a Russian ship having arrived at Nangasaky, to bring back to their country five Japanese who had been wrecked on the coast of Kamtschatka, and he seemed perfectly sensible of the merits of this action; this being the second time the Russians had been so generous to his country-people; and he was not a little astonished to hear that it was our own ship which had conveyed his countrymen back to Nangasaky, and still more so when told that it was only three weeks since we had quitted that harbour; a piece of intelligence which rendered him rather uneasy. He quitted us at length with a most earnest request that we would depart as soon as possible; and he represented to us the danger of our anchorage, and the dreadful typhons which rage here in the spring and summer, adducing several other equally groundless reasons, and particularly repeating the numerous bomboms which would arrive from Matzumay to annihilate us. As I had no intention of remaining long here, a further stay at this time of the year being attended with no advantage, and offering very little instruction to the naturalist, I assured him that I would infallibly go the next day, provided the weather was sufficiently clear for

us to see the opposite coast, and we parted the best friends possible.

Throughout the day we had frequent visits, as well from the Japanese merchants as from the Ainos, who brought dried herrings to exchange for old clothes and buttons. Either these last must be of particular value to them, or herrings of none at all, for they exchanged from fifty to a hundred of them dried, finer than I ever met them, for an old brass button. The Japanese bartered pipes, lacquered dishes, and particularly books of obscene pictures; their chief, and perhaps only study, for they would scarcely have brought them all the way from Matzumay merely to sell.

Romanzoff bay at the north end of Jesso is formed by the northern point of this island to the west, and by cape Soya, which two capes lie N. E. b. N $\frac{1}{2}$ E. and S. W. b. W. $\frac{1}{2}$ W. fourteen miles distant of each other. On the southern side of this bay is a bight, forming a bay of itself, of which cape Romanzoff is the south-west, and another about four and a half miles distant the north-east point. At the entrance of this small bay the Nadeshda anchored in ten and a half fathoms water over a bottom of the best kind, being of thick clay and fine sand, and it cost us some trouble to weigh our anchor. The depth of the anchorage decreased in a S. S. E. direction, from ten and a half to seven fathoms, which water there was about two miles from the shore; about a mile nearer it is four and a half, and at the distance of scarcely twenty fathoms from the land eight or ten feet, the bottom being every where the same. The time of our stay here was too short to ascertain any thing positive with regard

to that of the highest tides and lowest ebb; but from the appearance of the shore we were convinced that the floods were pretty considerable. The constant foggy weather, during the time we lay at anchor here, prevented us from making any observations on the variation of the compass; but from those made shortly before our arrival and soon after our departure in the straits of La Perouse, it may here be considered as null. The latitude of our anchorage was 45° 24′ 45″ N., and the longitude 218° 20′ 00″ W. Cape Romanzoff lies in latitude 45° 25′ 50″, and longitude 218° 25′ 30″. Cape Soya in 45° 31′ 15″ N. and 218° 09′ 00″ W.

About six in the morning of the 13th May the fog divided, and we observed the opposite shore of Sachalin; the Karafuto of the Japanese. Although the wind continued fresh at N. E. I got under sail and steered N. N. W.: we soon after perceived the Pik de Langle, a name which I retain, without, however, giving up the proper name Rio-schery *. La Perouse must have concluded from the height of this peak, and its nearness to the land behind it, that it belonged to Jesso, and if we had not

* Broughton calls this Peaked Island, but says that its proper name is Timoschee, and that the island to the north of it is called Teesche, according to the report of a native of the first who went on board his ship. The Japanese officer who visited us in Romanzoff bay, as well as several Ainos whom we questioned concerning the names of these two islands, all agreed in calling them Rii-schery and Refuni-schery. Lieutenants Chwostoff and Dawidoff became acquainted with them by the names of Rio-schery and Refun-schery, and in the Japanese charts they are called Riisery and Refunisery; a trifling difference, arising from the pronunciation. I have given the preference to Rio-chery and Refun-schery, Lieutenants Chwostoff and Dawidoff having landed on them.

sailed between the island and Jesso, we might easily at a short distance have committed the same error *.

The peak de Langle lies in 45° 11′ 00″ N. and 218° 47′ 45″ W. This determination rests not only on repeated astronomical observations, but on a great number of bearings and distances which were measured during the several days on which we saw it. In La Perouse's chart it is in 45° 23′ N. and 217° 50′ W. of Greenwich. In a note the editor of this voyage states the latitude to be 45° 15′, and they are both incorrect; for, according to the rhumb of La Perouse's log-book, compared with the true corrected longitude of Dagelet, the peak de Langle must be in latitude 45° 10′ 48″, and longitude 218° 38′ 10″, which varies 12″ in the latitude and nine and a half minutes in the longitude from our observations. In *La Connaissance des tems* there is another latitude and longitude, viz. 45° 20′ N. and 139° 42′ east of Paris, or 217° 58′ W. of Greenwich†. The incorrect position of this peak in the

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* The following example from Broughton's voyage proves how easily any one may be mistaken. He had steered west of the Pik de Langle, and consequently did not see a small part of the coast of Jesso between 45° 00′ and 45° 15′, whence he concluded that the northern part of Jesso was an island. A Japanese chart (probably such an one as that we had) in which the island Chica, or Karafuto, is laid down to the north of Jesso, confirmed Captain Broughton in his opinion; and had we not sailed along this part of the coast, at a distance of only two and a half or three miles, this would undoubtedly have been adopted as a positive fact.

† In Broughton's chart this island lies in 44° 50′ N. and 218° 57′ W. In the journal neither latitude nor longitude are given. As Broughton's latitude of the N. W. point of Jesso agrees with ours, there can be no doubt of some error having occurred in the construction of the chart, and this is confirmed by Broughton's log-

charts of La Perouse's and Broughton's voyages, shews the necessity of immediately putting down the true longitude and latitude of every remarkable place in the journal; for a third person must infallibly commit some error when he has to calculate the same from observations, rhumbs, and supposed distances; besides that it generally occasions an unpleasant, and frequently unthankful task, if the rhumbs should not be marked with accuracy, or any fault either in copying or printing them should occur; an accident which can rarely be avoided. As I have myself frequently experienced this, I have never omitted noting down immediately the latitude and longitude of every point, a plan adopted by Vancouver; and it should be the duty of every navigator to follow him, he being, in point of clearness and correctness, a most admirable standard. He has equalled his great masters, Cook and King. The situations described in this journal should always be considered as the correct ones, even though they should differ a little from the chart, which will however very rarely happen; and where it does the difference can be but trifling, all the charts having been made under my own direction, and I have repeatedly compared the manuscript ones with my journal.

About seven o'clock the north-east point of Refun-schery bore nearly west, about twenty or twenty-five miles, the southern point S. W. 70°. This island, which we saw through the mist

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book. "On the 7th September 1797 at noon our latitude was 45° 44′ 34″ N., the peak then bore S. E. 8° thirty-six miles." This makes the latitude of the peak 45° 09′ 00″ N. instead of 44° 50′ as it is described in the chart. See Broughton's Voyage, original edition, 4to. page 290 and 387.

on the 11th May, is of pretty considerable size; in the middle the land rises to a tolerable height, gradually sloping away on both sides: it lies N. W. b. N. of Rio-schery*. La Perouse must have seen Refun-schery, though perhaps at a considerable distance, and it is probably the same which he has called cape Guibert, a name which I have retained for the N. E. point of this island. By our observations it lies in 45° 27′ 45″ N. and 218° 56′ 00″ W.

We passed through the straits of La Perouse with a variable wind at N. E. and E. S. E. the depth from our anchorage increasing to fifty fathoms, and then again falling off to twenty-eight. Towards the coast of Jesso the ground was of fine sand: on that of Sachalin, on the contrary, of coral and small stones. At half past three we perceived on the south-west point of Sachalin a small round rock, which La Perouse has not mentioned, and which is at a short distance from the land. About five o'clock we saw to the north-west the island called by La Perouse Monneron, and north-east the rock he called La Dangereuse, a very proper name, for it is almost even with the water. We also saw the small rock he mentions at the extreme end of cape Crillon. At six, as the wind was become very moderate, I steered to the southward; it continued calm throughout the night, with light airs of wind from the south-west. The depth of water was from twenty-eight to thirty-five fathoms, the bottom

* Broughton, who went much nearer to this island than we did, says it is about twelve miles long in a N. E. and S. W. direction; and he saw houses both on this and on Rio-schery.

rocky, with coral and small stones: the current set the ship to the eastward, At day-break we clearly distinguished the continuation of the coast of Jesso towards the south and east; our distance from land being at the most from eight to nine miles. From cape Soya it runs quite in an easterly direction, as far as to a considerable bay, when it trends away suddenly to the southward. A cape, close to which were some lofty mountains covered with snow, and among these a peak of considerable size, was the boundary of that part of the north-east coast of Jesso which we saw. It lies in 45° 21′ N. and 217° 48′ W.: a determination I cannot quite answer for, as, owing to the distance and the thick weather, we could not distinctly distinguish its outline. I have named this promontory cape Shaep, in remembrance of the almost forgotten companion of Captain Vries.

I now steered towards Aniwa bay; although it had been already visited, as well as that which bears the name of Patience, by the Dutch. I wished, in order to render our examination of Sachalin as perfect as possible, to commence at cape Crillon, which, with cape Aniwa, are the last points in Sachalin whose astronomical situation was determined by La Perouse. The skill of the Dutch navigators in the seventeenth century was not very great, and although La Perouse pays the highest, and certainly the most merited, compliment to Captain Vries, I conceived it would be a most decided service to geography to examine these two large bays with accuracy; and to determine their boundary with that precision which might be expected from us. It will shortly appear that Captain Vries has committed errors in both, which appears almost incredible,

considering that the time spent in examining them was employed in the best possible manner.

At nine in the morning the rock La Dangereuse bore west, and we sailed by it at the distance of about two miles and a half, when with a line of twenty-five fathoms we found a rocky bottom with small stones. A number of sea-horses lay upon this rock, and made so horrible a noise that it was distinctly heard on board the ship. By our observation La Dangereuse lies in 45° 47′ 15″ N. and 217° 51′ 15″ W., ten miles S. E., 48° from cape Crillon, which is very little different from the position assigned by La Perouse. At 10 h. 18′ cape Crillon bore west, and cape Aniwa, which we saw at day-break, N. E. 79°: at 11 h. 38′ this cape bore east. Our latitude at noon was 46° 03′ 38″, in which there cannot be an error of ten seconds, as the weather was very clear and the horizon distinct. The situation of cape Aniwa I will describe when I come to mention our departure from the bay, when we had an opportunity of observing it with equal accuracy. Cape Crillon by our observation lies in latitude 45° 54′ 15″ and longitude 218° 02′ 04″. In La Perouse's voyage and chart it is in 45° 57′ 00″ N. and 140° 34′ 00″ east of Paris; but according to Dagelet's corrected tables, for the chronometer No. 19, which I have already mentioned on the occasion of the peak de Langle and Tsus island, the difference between the corrected longitude and that of the chart on the 11th August 1787, is — 46′ 21″*. According to this, therefore,

* The true latitude on the 11th August 1787, according to the corrected tables of No. 19, is 139° 38′ 39″. According to the chart the meridian point of the 11th is 140° 24′: the difference is therefore 45′ 21″.

the longitude of cape Crillon would be = 140° 34′ 00″ — 46′ 21″ = 139° 48′ 39″ east of Paris, or 217° 51′ 21″ west of Greenwich, which is about ten minutes and a half more east than we found it to be; nearly the same as that of Pik de Langle.

The west side of Aniwa bay is throughout very mountainous, and even now was covered in parts with snow. A flat and rather projecting mountain in the direction of the coast, which here trended N. N. E. was alone distinguishable by its greater height; and this was also entirely covered with snow. The shore was throughout lined with steep rocks, between some of which there appeared to be entrances, not, however, deserving the name of bays, and the depth, at the distance of seven or eight miles, which was what we kept from the shore, was from twenty-five to thirty-five fathoms over a rocky bottom. We saw the whole east side of Aniwa bay, but not distinctly, owing to our great distance: from cape Aniwa it first runs in a northerly direction, then inclines a little to the west to a head-land, which projects also to the west, and from this as far as the end of the bay the land lies north and south. This projecting point of land is probably the same which the Dutch called Tamary-Aniwa, a name which I have retained as well as that of Salm (Salmon) bay, and Lachsforellen (Salmontrout) bay, of which Tamary-Aniwa is the south-east point. A Japanese vessel which we had already seen in the morning was sailing before us; and when we had nearly overhauled it, shifted its course to the east side of the bay; where, as we afterwards ascertained, the Japanese have a larger establishment than in Salm bay.

At four we saw a peak to the northward, which I took to be

Pik Bernizet, mentioned by La Perouse. At six we already saw the extremity of the bay, the depth decreasing from thirty-six to seven and a half fathoms, the bottom chiefly of soft green ooze; and with this depth of water we anchored about eight o'clock fronting a small village*, where we found a one-masted Japanese vessel, Pik Bernizet at the time bearing N. E. 5°, and Tamary-Aniwa S. E. 80°, and our distance from land being about two miles.

At ten the next morning I went with the ambassador on board the Japanese ship, where we were very handsomely received, and treated with sakky, rice bread, and tobacco. The Japanese seemed very desirous of exchanging some trifles which we saw for cloth, but they were afraid of their officers, of whom they told us there were two on shore, who would infallibly strike off their heads if they should hear of it. The master of the vessel acquainted us that he came from Osaica, with a lading consisting of rice and salt, and that here he should take in furs, some kinds of which he shewed us, but particularly fish; indeed his whole vessel was filled with dried fish, which were laid lengthways in the hold, the same as in a cask, and afterwards strewed over with salt.

I was very curious to hear from him what connexion this place had with Karafuto, and my first question to him was to that effect. He informed me that this island, which was very large, was called by the Japanese Karafuto, but that the natives

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* This we afterwards found to be a Japanese establishment.

of the country, who, he said, were Ainos, named it Sandan: so that Karafuto and Sandan were one and the same country; that he was not acquainted with the northern extremity of the island, but had heard that it was separated from a great country by so shallow a channel, that even his ship, which did not draw at the most more than eight or nine feet, could not pass through it. By this he must have meant the channel of Tartary, which La Perouse imagined was not navigable, and which we afterwards thought we ascertained no longer to exist, although it once did, and gave rise to this opinion in Japan.

The officers who are maintained here, as well as on the north point of Jesso by the Japanese government, are merely for the purpose of superintending the trade between the Japanese and the Ainos; a custom which certainly deserves imitation, as merchants when left entirely to themselves set no bounds to their extortions and violence. If, however, the account I received from the master of a Japanese vessel is to be depended on, their residence here is not for so noble a purpose. This man, in October 1804, was stranded on the coast of Poromuschir, one of the Kurile islands, and whom I met in Kamschatka upon our return there in June this year, appeared to me a very sensible person, and must have been well acquainted with this trade, as he had entered into it of his own accord; and it was in a similar voyage during the preceding year that he had been driven by a violent storm to the N. E. towards the Kuriles. He informed me that the trade with Karafuto, which was of the greatest importance to the northern inhabitants of Japan, as the fish they bring from thence is a necessary article of consumption, was formerly free; but that within a few years the govern-

ment had taken it entirely into their own hands, making it an imperial monopoly. Although, according to Japanese principles, the subject dares not censure even the most oppressive and unjust measures of the government, the Japanese master assured me, that this usurped monopoly had caused the greatest dissatisfaction to the people in the north of Japan; as the government sold the fish, which had become an article of necessity to them, at a very high price, and consequently the persons employed in the sale would have their advantage likewise. We had already imagined the establishment in Karafuto to be quite recent, as both the habitations of the Japanese officers and the warehouses were entirely new, some of them being even still unfinished.

We did not receive any visit from the Ainos as in Romanzoff bay; and our expectations to obtain in this, which on account of its abounding in salmon trout has been called by the Dutch Salmontrout (Lachsforellen) bay, a supply of fish that would last us several days, were entirely frustrated. At day-break Lieutenant Ratmanoff went with Dr. Langsdorff in the direction of Tamary-Aniwa, to examine the east side of the bay, but particularly that part into which we had seen the Japanese vessel sail, and in the afternoon we ourselves went on shore to pay a visit to the factory. Owing to the heavy surf, it was impossible to land in our boats; we were therefore obliged to suffer ourselves to be conveyed on shore, through the surf, two at a time in a small skiff, which an Aino very good humouredly offered for that purpose, and not without danger of getting wet. The land near the shore consisted of reeds and grass growing upon a wet and clayey bottom, and in the vicinity of a small river, which at its mouth was about seven or eight fathoms wide, was a large heap

of rotten leaves at least a foot in depth; here too no signs of spring appeared.

The Japanese establishment was on both sides of the river, and consisted, besides a few dwelling-houses, of eight or nine warehouses at the most, quite new, and almost all filled with fish, salt, and rice. The Japanese officers appeared to be in the utmost alarm at our visit, and it was with trembling only that they would answer a few questions which the ambassador put to them. They had collected about twenty of their countrymen and upwards of fifty Ainos around them, and seemed to fear some sudden attack; but as they soon perceived our friendly disposition towards them, the crowd immediately dispersed. In the river were ten large flat-bottomed vessels, and judging from the preparations in the magazines, the trade of this establishment requires at least ten or twelve yearly of that size which the Japanese generally use for their coasting trade, viz. from one hundred to one hundred and twenty tons. At Tamary-Aniwa Lieutenant Ratmanoff found another establishment, which, according to his statement, must have been still more considerable, and is, probably, the chief commercial settlement of the Japanese in Aniwa bay. They found there above one hundred houses of the Ainos, and more than three hundred persons busied in cleaning and drying fish: five small masted vessels, besides the large one which we saw run in there, and a great many transport boats, lay in the harbour, which, though small, was safer than the anchorage in Lachsforellen (Salmontrout) bay. The houses of the Japanese and their magazines were in a beautiful vale, through which flowed a stream of clear water: the officers established there were of a higher rank than those in Lachsforellen bay, who wore

but one sword, while the former, on the contrary, had two, a privilege only enjoyed by the military in Japan. They received our officers in the handsomest manner, treating them with the finest rice, fish, and sakky, without being in the least alarmed or disturbed by their visit.

We found only a few huts of the Ainos near the establishment in Lachsforellen bay. They were constructed with the bark of trees, and in the form of a soldier's tent, pointed at the top, and two of them were entirely covered with Japanese mats where the women were concealed. These miserable huts can only be for a temporary purpose, for it is impossible that, in so raw a climate, they should serve for a winter abode; and their dwelling-houses seemed to be farther inland, in which direction there were several foot-paths. It is probable that they only quit them in the summer for the sake of their fishery, during which time they run up these huts in the vicinity of the bay.

The latitude of our anchorage was 46° 41′ 15″ N. and 217° 28′ 00″ W. The Japanese factory at the mouth of the small river bore N. W. 49°, 2½ miles, consequently, the mouth of the river is in 46° 43′ 00″ N. On the chart of the Castricom discoveries * the mouth of this river lies in 47° 35′, and it seems almost incomprehensible how this error of fifty-two minutes in the latitude can have been committed. The error in that of Tamary-Aniwa, which, by our observations, lies in 46° 36′ 20″, and 217° 08′ 25′, is only thirty-two minutes. The soundings are

* I am indebted to the kindness of Leclerc in Paris for a copy of this chart; and I take this opportunity to return him my thanks.

also very incorrectly described in the Dutch chart, where they gradually decrease to four fathoms; the bottom every where being strong clay mixed with fine sand; while from the depth of twelve to four fathoms the clay is soft and quite of a green colour. At the entrance near cape Aniwa the ground is every where rocky, with small stones, and the depths on the east and west side of the bay are alike. The direction of Aniwa bay is nearly north and south: Lachsforellen bay, therefore, which is at the further extremity of that of Aniwa, is entirely exposed to the south, which are here said to be the prevailing winds, and consequently the road is by no means safe. The great surf is moreover an obstacle to landing; but when the tides are rising I fancy it is not attended with any danger, as the Japanese flat boats passed at all times through it. We remained here forty-eight hours, and at night had a gentle breeze from the land, when the shore was very accessible; but about seven in the morning the wind again veered to the south, and blew throughout the day pretty fresh. It was impossible for us to ascertain the time of the highest springs and lowest ebbs; but I believe it to be half past four o'clock at the time of the new and full moon.

The harbour at Tamary-Aniwa, which was examined by Lieutenant Ratmanoff, is somewhat sheltered against the south wind, but too small for a ship of any considerable size to lie there, and near cape Aniwa probably a better harbour might be found. As we sailed out of the bay, we were prevented by a high wind and foggy weather from examining the whole of the east side, as was my intention; but if any safe harbour exists here, this bay would be extremely well calculated for

an establishment of any active European nation, and might serve as a depôt of European goods; as it would be perfectly easy to open a trade from hence with the Japanese, Coreers, or Chinese. These nations would themselves come to exchange their wares against those of Europe; but particularly for the produce of the country, fish and furs, which articles, now absolutely necessary to them, are found here in the greatest abundance. Even Kamtschatka might easily be supplied from thence with European articles; only for specie indeed; for Kamtschatka, with the exception of a few sables, produces nothing which could here find a market. A larger quantity of whales is, perhaps, no where to be found than here, even the little Lachsforellen bay being so full of them, that the greatest caution was necessary in going on shore; and the ship, both on entering and quitting the bay, was entirely surrounded by them. In Patience bay we saw, if possible, a still greater number. It is probable that the Japanese have not yet begun to occupy themselves with the whale-fishery here, which would become a very profitable branch of trade to them; particularly if the Cachelot (Physeter Macrocephalus, Linn.) exists here, (a circumstance not unlikely,) which is so valuable on account of its spermaceti and ambergrease, two articles that would find a great sale in Japan: the spermaceti, from the great consumption of lights there; and ambergrease, as an important article in the small medicine box which every Japanese carries about him, for, like the Turks, whom they even exceed in sensuality, they make use of ambergrease as a stimulus to lust*.

* Kämpfer, in his Dissertation on Ambergrease, gives for this purpose a receipt which he had from a very considerable Japanese physician. Kämpfer's Account of Japan, vol. ii. p. 471.

At the back of Lachsforellen bay is a large valley through which the river winds, on whose banks, as we have already mentioned, the Japanese factory is established. This valley might easily be cultivated: the woods on both sides of the bay contain the finest pine-trees, which furnish admirable timber for building, as we were convinced by the Japanese houses; and this timber must likewise be applicable to the purposes of ship-building, the Japanese flat-bottomed lighters being evidently built on the spot. The shores are covered with crabs and oysters; the game has never hitherto been disturbed; for neither the Ainos, nor their masters the Japanese, appeared to be in possession of a single gun, which they would otherwise have undoubtedly produced to inspire us with respect, as they did their pikes. As to fish, it is hardly necessary to repeat here in what plenty they must be found, as the Japanese employ in the two establishments upwards of four hundred Ainos, who have no other nourishment than fish, merely to clean and dry them for exportation to Japan. The manner likewise in which they are caught is a sufficient demonstration of their abundance; as they do not even employ a net for this purpose, but dip for them with a pail during the ebb. This article is so important, and is become so necessary to the poor people in the north of Japan, that the most absolute orders of their government could not prevent them from coming to Aniwa bay to procure them, let the possessors of Aniwa be who they would, and in all probability they might obtain them at a much more reasonable rate from Europeans than from their avaricious Banjos.

With regard to taking possession of Aniwa, this could be done without the smallest danger, as the Japanese, owing to

their total want of weapons of every description, would scarcely think of resistance. And still less would their government endeavour to recover this place if it should be taken; for as they could not calculate upon a favourable issue, they would never venture to risk, in an unsuccessful enterprize, their reputation of power and infallibility with the people: the loss of which would prove of much more serious consequence to them than even that of all Jesso. But if the Japanese government should try every possible method to recover the possession of this place, which they would not have occupied had their capture of it been attended with any difficulty, they are entirely destitute of the means. Without armed ships or artillery they could not have gained an inch of ground even from the Ainos, if these had been disposed to resist them. Two cutters of sixteen guns and sixty men would be quite sufficient, with a moderate air of wind, to sink the whole Japanese fleet, had it even ten thousand men on board. The capture of Aniwa is therefore no perilous undertaking; and I am convinced that this conquest would not cost a single drop of blood, and that to keep possession of the establishment would be equally unattended with danger. The Japanese maintain no troops in the north, and probably but very few in the south of Jesso. As a great part of this island is uncultivated, a chain of lofty mountains running through it, it may easily be imagined how extremely difficult the march of an army from the city of Matzumay to the northern extremity of it would be; though this obstacle is not insurmountable, as it only depends on the will of the monarch to cause such an undertaking: but it is in the conveyance of an army from Jesso to Aniwa that the pride of the Japanese would sink, for the smallest European vessel is sufficient to annihilate their most

tremendous armada; and upon land, a battery of twelve guns with a hundred artillery-men, would check any troops they might be able to land there. It is true that so forcible an usurpation appears in a very unjust light; but are the titles of the Japanese to Sachalin better founded than those of any European nation? The most essential objection would be, that such a capture was made without the approbation of the true possessors of Sachalin, the Ainos; and I honestly confess my doubts whether they would gain by such a change; for they appeared to me to be treated with great humanity by the Japanese. But this would be the affair of the government, which might adopt such measures as should secure their liberty, and give them no cause to lament the change of masters: this humanity as well as policy would require.

As such an event as a European establishment in the island of Sachalin (perhaps the only means of partaking in the Japanese trade) is probably at no great distance, I have merely mentioned in a few words the possibility of such an undertaking. To the English from the East Indies, or the Spaniards from the Philippines, it would be extremely easy, but particularly so to the Russians from Kamtschatka or the northern parts of Siberia: yet there are essential obstacles to this at present; the want, for instance, of a constant communication by water between Europe and the Russian possessions in the north of Asia, but principally the scarcity of men, which is nowhere more apparent than in Siberia and Kamtschatka*.

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* Upon our return to Europe I found that the Chamberlain Resanoff, during our stay at Kodiak, had set on foot a military expedition against the northern pos-

Before I quit Aniwa bay I shall subjoin a few remarks, although they are but unsatisfactory, upon the original inhabitants of Jesso, and the southern part of Sachalin; as this people, so little known to the Europeans, deserve that a few of those traits which chiefly characterize them, and which place every inhabitant in a favourable point of view, should be more generally known.

I have already mentioned that Aino is the proper name of the native of Jesso; and thus also the people of the south of Sachalin are called: their figure, dress, appearance, and their language prove that they are the same people; and the captain of the Castricom, when he missed the straits of La Perouse, might imagine, as well in Aniwa as in Alkys, that he was but in one island. What I shall therefore relate of the Ainos refers as much to the natives of Jesso, as to those of the south of Sachalin, who must be the same people that since Spanberg's time have been called Kuriles, or hairy Kuriles.

The Ainos are rather below the middle stature, being at the most five feet two or four inches high, of a dark, nearly black complexion, with a thick bushy beard, black rough hair, hanging straight down; and excepting in the beard they have the appearance of the Kamtschadales, only that their countenance is much more regular. The women are sufficiently ugly: their colour which is equally dark, their coal black hair combed over their faces, blue painted lips, and tattooed hands, added

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sessions of Japan; but this expedition had no permanent object, being merely intended to destroy the Japanese establishments in Aniwa bay and on the north side of Jesso.

to no remarkable cleanliness in their clothing, do not give them any great pretensions to loveliness; this at least was the case with those we had an opportunity of seeing on the north side of Jesso. We perceived indeed in Aniwa bay some who were younger, whose eyes had not lost their brightness, and who on this account were not quite so ugly; but I confess that the impression even these made upon me was equally unfavourable. However, I must do them the justice to say, that they are modest in the highest degree, and in this point form the completest contrast with the women of Nukahiwa and of Otaheite. Their modesty even amounted to bashfulness, occasioned, perhaps, by the jealousy of their husbands, and the watchfulness of their parents: they never quitted for a moment, while we were on shore, the huts in which they had assembled, and were extremely distressed when Dr. Tilesius made drawings of them.

The characteristic quality of an Aino is goodness of heart, which is expressed in the strongest manner in his countenance; and so far as we were enabled to observe their actions, they fully answered this expression. These, as well as their looks, evinced something simple but noble. Avarice, or rather rapacity, the common fault of all the wild inhabitants of the southern islands in the eastern ocean, they are entirely strangers to: in Romanzoff bay they brought fish on board which they immediately left to us, without demanding the least thing in return; and much as they were delighted with the presents made to them, they would not admit them as their property, until they had been frequently assured by signs of their being intended for them. We had no opportunity of witnessing the same virtues in the inhabitants of

Salm (Salmon) bay, as they did not come on board, probably because the Japanese prevented them.

The dress of the Ainos consists chiefly of the skins of tame dogs and seals; but I have seen some in a very different attire, which resembled the Parkis of the Kamtschadales, and is, properly speaking, a white shirt worn over their other clothes. In Aniwa bay they were all clad in furs; their boots were made of seal-skins, and in these likewise the women were invariably clothed. In Romanzoff bay, on the contrary, we saw only two fur dresses, one of which was a bear's-skin, the other made of dog's-skins; and the rest of the people were dressed in a coarse yellow stuff, made of the bark of a tree, (as we ascertained in their houses), which a few wore bordered with blue cloth. Under this dress they had another of a fine cotton stuff that they probably purchase of the Japanese. Here we saw no boots, such as were worn by every one in Aniwa bay, but instead of them they used Japanese straw-slippers: a few of them covered their legs with a kind of half stockings stitched together of the same coarse stuff as their upper garments. This difference in the dress of the Ainos of Jesso and Sachalin seems to prove a much greater degree of wealth in the latter island, and the men here appeared to wear a more cheerful aspect, but whether this is owing to their superior wealth in fish and furs, which find a certain market with the Japanese, or to their little dependence on these latter, I cannot pretend to decide, though I am inclined to believe the former. The greatest part of them went with their heads uncovered, others wore a straw hat pointed in the middle. I fancy it is not the custom of the country to shave the hair, though I

saw several of them with their heads half shorn; probably only in imitation of the Japanese. The women, even the youngest, use no ornaments on their heads; but, as I have already mentioned, they invariably paint their lips blue; a practice which to an European, accustomed to the rose colour, appears extremely ugly. On the contrary, many of the male sex wore earrings, which were commonly merely a brass ring. I purchased a pair of a young man made of silver, with large false pearls suspended from them*. The possessor seemed to set great value on these ornaments, being very unwilling to part with them; and twice he repented of his bargain, took them back again, and demanded a higher price. An old coat, two cotton cloths, and a piece of flat white metal, were the treasures for which he at last exchanged them. Buttons and old clothes were the articles the Ainos most sought after, and for which they gave their pipes and other trifles, of no value certainly, but as having belonged to an inhabitant of Jesso.

The huts we saw in Aniwa bay were, as I have already said, probably newly built, and served only for their summer residence. In Romanzoff bay they appeared to be their constant abode both in winter and summer. The two we visited, and near to which were Balagans for drying fish, consisted of a single large room, which with a small division at one end, occupied the whole interior of the house. Their construction did not seem to me to be very solid, and unless the houses are entirely covered with

* La Perouse saw one of the inhabitants of the bay de Langle with a similar pair.

snow, as in Kamtschatka, I cannot conceive how they are able to bear the cold, which must be intense here in the winter: since even in the month of May the thermometer only shewed three degrees of warmth. In the middle of the room was a large hearth, around which the whole family, consisting of eight or ten persons, was seated: the furniture consisted of a large bed, over which a Japanese mat was spread, and several boxes and barrels. All their utensils were of Japanese manufacture, and mostly lacquered: it appeared from the interior of the house that the inhabitants possessed a degree of affluence, such as is not found among the Kamtschadales, still less among the Aleuti and the unfortunate inhabitants of Kodiack. The great provision of dried fish bore indeed rather a disgusting appearance, but no objection can be taken to this when we reflect that their existence depends upon them; fish being probably their only nourishment, and their houses on this account being chiefly scattered along the shore. We perceived no symptoms of cultivation, not even any plantations of vegetables; nor did we see any tame fowls or domestic animals, except dogs, which they had in great abundance; and Lieutenant Golowatscheff found in Mordwinoff bay, on the west coast of Patience bay, above fifty in one place. In all probability they use them for their journeys in the winter; for we saw in Aniwa bay a sledge which bore a perfect resemblance to a Kamtschadale narte: dog skins also are here an important article of dress. We were struck on perceiving that snow water was the common beverage of the people on the north side of Jesso, although that of the river which flowed into the bay was extremely good; perhaps the fear of cold in the winter, as they would have to fetch their water from the river, which is not very near to their houses, has so accustomed them

to snow water that they prefer it to that of the river so long as they are able to procure it. It seemed also the custom here, at least it was so in all the houses which either I or any of my officers visited, to bring up a young bear in the house, to which a place was assigned in one of the corners of the room, and which was decidedly the most restless of any of its inhabitants. One of our officers was desirous of purchasing one of these bears, and offered his great coat in exchange for it; but he could not persuade the proprietor, although cloth is of great value in the eyes of the Ainos, as the Japanese are unable to supply them with it, to part with his young *elève*.

It would be presuming too much to enter into any detail upon the form of government and the religion of the Ainos, as our stay here was much too circumscribed for us to have instituted any enquiries into these subjects; but with their limited population it is not easy to imagine any other than a patriarchal constitution. During our visit to one of their houses in Romanzoff bay, we observed in the family, which consisted of ten persons, the happiest state of harmony, or rather a perfect equality. We continued there some hours, and were scarcely able to distinguish the head of the family, so little assuming were even the oldest, towards its youngest members. Accordingly, in dividing a few presents among them I preserved a most perfect equality, which they all appeared pleased with, no one, not even the oldest, remarking that I had given him too little in proportion to the others. On the contrary, they called my attention to a little girl about eight years old, whom I had overlooked, and who now obtained her share. This unanimity, and the silence which reigns among them, awake the most favourable feelings towards

them. Here was no loud talking, no immoderate laughter, and still less any disputing: the satisfaction that appeared in all their countenances as they spread the mats round the hearth for us; their readiness when we were going away, to launch their canoes and carry us across the shallows to our boat, when they perceived that our boatmen were stripping themselves for this purpose; but still more than all this, their modesty never to demand any thing, and even to accept with hesitation whatever was offered to them, wherein they differ very much from the inhabitants of the west of Sachalin, whose diffidence La Perouse could not speak of with praise; all these uncommon qualities, for which they are not indebted to any polished education, but which are merely the marks of their natural character, make me consider the Ainos as the best of all the people that I have hitherto been acquainted with.

I have already mentioned their inconsiderable numbers, particularly in Jesso. On the north of this island we counted only eight dwelling-houses, and if we admit ten as the number of each family, this makes that of the inhabitants of this district only eighty. Farther inland they probably have no establishments; for as their whole nourishment consists of fish, they only settle on the sea shores. In Salmon bay, and Tamary Aniwa, the Ainos probably amount to three hundred; but we were there at the time of the fishery, and it is chiefly from hence that the Japanese procure this article, for which they are obliged to have recourse to the inhabitants of the neighbouring bays, who settle here at such times, in order to prepare so large a quantity. Not only the recently built houses of the Ainos in the vicinity of the Japanese factory is a proof of this, but also the number of houses

provided with furniture but destitute of inhabitants in Mordwinoff bay, where Lieutenant Golowatscheff, who visited that part, found but a few persons, and these not merely to guard the property, for they seemed to consider it as their own.

According to the most ancient accounts we have of this island, its inhabitants are said to be covered with hair. The Chinese (who probably were the first people acquainted with Jesso), describe it as a large country full of wild people, whose whole body is covered with hair, and with such enormous beards that they are forced to raise them up in order to drink. The Dutch in the well-known expedition in 1643, under the command of Captain Vries, and the Russians under Spanberg in 1739, confirmed this description. Although so many concurring accounts seem to testify the fact of the natives of Jesso being overgrown with hair, nevertheless I am disposed from our experience to declare this report to be fabulous. The Jesuit Hieronymus de Angelis, the first European who, in 1620, visited Jesso, merely mentions their bushy beards, but says not a word of their hairy bodies; and as he resided for some time amongst them, he certainly had a better opportunity of examining their personal qualities than could be found in the short visits of the Dutch, the Russians, or the Chinese, and he would not have failed to make known so striking a circumstance. On the north of Jesso we examined some people, but found that, except their bushy beard and the hair on their faces, there was not the least thing to give even probability to such a story. In Aniwa I got several of them to uncover their breasts, arms, and legs, and we were here convinced to a certainty that the greater part of the Ainos have no more hair upon their bodies than is to be found upon those of

many Europeans. Lieutenant Golowatscheff found indeed in Mordwinoff bay a child of eight years old whose body was entirely covered with hair, but he immediately examined its parents and several other grown up persons, and found them all in that respect like Europeans. I will not flatly contradict the report of older and modern navigators, whose credibility I do not argue against; but I believe that they have exaggerated this story respecting the Ainos, or, what is the same thing, the natives of the southern Kuriles: at least it is not equally true with regard to all. Perhaps the impression which the Dutch received from their bushy beard, hairy face, and lank locks, added to the uncleanliness of their persons, left an idea that their bodies must be as much covered as their faces; and as they did not wait to examine whether this were really the case, this gave rise to a story which has been ever since repeated as a fact.

CHAPTER III.

DEPARTURE FROM ANIWA BAY. ARRIVAL IN KAMTSCHATKA.

The Nadeshda leaves Salmon Bay—Description of Cape Aniwa—We sail into Gulf Patience—Explore Mordwinoff Bay—Account of the Ainos who reside there—Farther Examination of the Gulf—Spenberg and Peak Bernizet—We reach the bottom of the Gulf, and anchor there—Remarks upon this Part of Sachalin—Difference of its Situation according to the old Dutch Observations—The Nadeshda quits Patience Bay—We perceive the Rocks round Robben Island—Error in its Position in the Charts—Large Fields of Ice on the East Coast of Sachalin—We are reduced to give up all farther Examination of this Island—Return to Kamtschatka—Cross the Kuriles in a new Parallel—Dangerous Situation of the Ship—Are obliged to return to the Sea of Ochotsk—See Cape Lopatka—Arrive in the Harbour of St. Peter and St. Paul—Precautions taken to prevent the spreading of the Small-Pox, which had broke out in the Ship.

On Thursday the 16th May, at six in the morning, we sailed with a fresh breeze at S. S. E. from Salmon bay; the ebb favouring our endeavours to work out. At nine the wind got round to the south-west, and, towards noon, was so high as to compel us to reef our top-sails. About four in the afternoon it became more moderate; but the weather was so thick, that although we were only at a short distance from the east coast of Aniwa bay, we could scarcely distinguish any land except the mountains in the neighbourhood of the cape of that name, and entirely missed the rock which, in the charts, is called the

Pyramid. By eight in the evening we had weathered cape Aniwa, and I therefore laid-to throughout the night. At day-break we perceived cape Aniwa bearing N. E. by N. and we had scarcely shaped our course towards it when a thick fog arose, and obliged us again to lie to. This, however, did not last above an hour and a half, and I again proceeded under all sail in the direction of the land.

Cape Aniwa, which lies in latitude 46° 2′ 20″, and longitude 216° 29′ 40″ *, is in every respect a very remarkable promontory, the more so from a chain of high mountains near it, stretching away to the northward, between which and the cape is a hollow that gives to it the appearance of a saddle. The headland itself is a steep abrupt mass of rocks perfectly barren, and having a deep inlet at its point, and we weathered it at the distance of from five to eight miles, without remarking the least appearance of danger; the depth, when the cape bore north and N. N. E. being seventy-five fathoms over a clayey bottom. We determined its latitude on two different days, on the 14th May, when it bore, shortly after the culmination of the sun, east; and on the 17th, when nearly west of us. The longitude was in like manner observed, and calculated with the greatest accuracy; and the correctness of our time-pieces leaves us nothing to desire with respect to it.

We were scarcely arrived within the parallel of cape Aniwa,

* In La Perouse's chart this cape lies in 46° 3′, and 215° 36′; but by construing the chart according to Dagelet's corrected tables, the longitude is then 216° 31′ 15″, only one minute and a half different from our determination.

when we lost our favourable wind, and fell in with calms that lasted, with alternate gentle breezes from the northward, for twenty-four hours. At noon cape Aniwa bore S. W. 81°, and another headland, which I at first erroneously took for cape Tonyn, N. W. 3°. This I have called Löwenorn, after my deserving friend the commodore of that name in the Danish service. The west side of Patience bay follows a N. N. E. direction as far as this cape, and consists of lofty wooded mountains, the shore being steep and rocky, without any appearance of an inlet, with the exception of a small open bay similar to that called de Langle in the channel of Tartary, and another more to the northward, of which cape Löwenorn, lying in 46° 23′ 10″ N., ten miles to the eastward of cape Aniwa, that is to say, in 216° 20′ 00″ west, forms the southern point: it is a steep projecting rock, easily to be distinguished from the rest of this coast by its yellow colour. From this point the land assumes rather a westward direction, and, like the northern coast, consists of a chain of large, lofty mountains, covered partly, even at this season of the year, with snow. A number of whales and seals, whose repose had, perhaps, never before been disturbed, sported around the ship. About seven in the evening we perceived a large boat, in which were six persons, rowing off to us from the shore; but after coming about half-way, and stopping a short time, probably to consider whether it would be prudent to venture so far to sea at night, they returned. The ship at this time was seven miles from the shore; the depth was sixty-five fathoms; the bottom a thin clay; the variation of the needle, which, at the entrance of Aniwa bay, was 1° 11′ east, was at that of gulf Patience 1° 43′ east, and here, although we were only one degree more to the northward, it was found to be

1° 01′ west; an unsteadiness which might possibly be owing to our compasses, for their variation from Nangasaky as far as to the east of cape Patience was at one time one or two degrees east, and at another as much to the westward.

On the 18th May at noon we had a breeze from the S. W., by favour of which we shaped our course N. W. by N., towards a point of land projecting very far to the eastward, and forming the utmost limits of the coast to the N. W. Behind this point was a round-topt mountain, adjoining to which was another chain of lofty mountains covered with snow; and between these there appeared, on our nearer approach, a deep bay, which I was the next morning bent upon examining. Accordingly I lay-to during the night, and at four the next day we steered for its south point, which was of moderate height, and entirely overgrown with firs. A flat land, having altogether the appearance of an island, was visible at the entrance of the bay, and formed its northern boundary: at seven we had approached within half a mile of the above-mentioned point, which is undoubtedly the cape Tonyn of the Dutch. The depth gradually diminished from fifty to eighteen fathoms; but the bottom was invariably rocky; and we now perceived a chain of rocks stretching to the northward from cape Tonyn. From all these circumstances we had little hopes of finding any anchorage in the bay; but as it was not impossible that the ground might improve further in to the southward, I lay-to after standing off about a mile and a half from cape Tonyn, and sent Lieutenant Golowatscheff in an armed boat to examine the bay closer, while we tacked about at its entrance. Southward of cape Tonyn the bottom was rocky, with small stones; but to the

northward, on the contrary, it was entirely of clay. In about an hour Lieutenant Golowatscheff returned, and informed me that as far as he had sounded he invariably met with a rocky bottom; but there can be no doubt of there being a good anchorage to the northward; an opinion which is rendered the more probable by the nature of the ground where we sounded outside the bay. There was plenty of fresh water in many places, and abundance of fire-wood, as well on the south side as in the valley to the northward; and Lieutenant Golowatscheff found several dwelling-houses on the shores of the bay, most of which were empty; and, with the exception of a few women and children, he saw only six or seven people, who evinced neither fear nor backwardness. As he entered the house into which he was invited immediately upon stepping on shore, one of the party, whom he took to be the master, threw himself at his feet, and held a discourse with a considerable air of dignity, which lasted about ten minutes; after which he spread out a mat, and requested he would sit down. They were entirely clothed in seal-skins, under which they wore another dress of fine cotton, which, in every instance, appeared very clean. The Ainos of this bay appeared to him not only better clad than those on the north point of Jesso, but even than their compatriots in Aniwa bay; and he fancied he perceived a less restrained and more happy appearance in them, denoting independence, and a sufficiency of every thing. The women were likewise better looking, and the colour of their countenances much clearer, the consequence, probably, of cleaner houses and less laborious occupation. In other respects, their figure, physiognomy, and language were perfectly the same as those of the inhabitants of Aniwa and Romanzoff bay: and some words that

he wrote down, and which were compared with those M. Von Resanoff collected in Aniwa bay, proved the similarity of the language of the inhabitants of these two districts. Their chief employment, besides fishing, seemed to be the pursuit of seals and sea lions, the remains of which were strewed around their houses. Train oil and furs are the chief articles of their commerce with the Japanese, whom they probably visit overland in Aniwa bay; the distance from hence to the Japanese factory at Tamary-Aniwa being only twenty, and from that in Salmon bay about thirty-five miles. The furniture and utensils, which Lieutenant Golowatscheff found in their houses in considerable quantity, were all of Japanese manufacture; and even the vessels in which they kept their water to drink were lacquered. This bay, which I have named Mordwinoff bay, in honour of the admiral of that name, lies in 46° 48′ 00″ N., and 216° 46′ 00″ west; and cape Tonyn in 46° 50′ 00″ and 216° 27′ 00″.

At two o'clock in the afternoon, after hoisting in the boat, I set all sail, and steered parallel with the coast, which here runs in a N. by W. direction, and, with the exception of the northern part of Mordwinoff bay, where, as I have already mentioned, the land is low, consisted of lofty mountains, still covered with snow, bounded by a high point of land, which I have called after Admiral Siniavin, and which lies in latitude 47° 16′ 30″, and longitude 217° 00′ 30″. From this cape the coast is again low, and falls suddenly off to the westward. A chain of lofty mountains, stretching from S. W. to N. E., the direction of the northern coast, rendered it probable that there was a passage here; and as I was desirous of obtaining certain in-

formation on this point, I steered towards the land. It was very foggy; but when we had approached to about five miles from the shore we could distinctly perceive that there was no break, but only a roomy, though not very deep, bay. One spot, from its narrowness and the situation of the low land and direction of the mountains, appeared like the mouth of a large river. As the weather still continued thick, and the wind blew fresh from the S. E. we put the ship about at half past seven with her head pointing E. N. E. At this time the depth was forty fathoms over a clayey bottom; but, instead of increasing as we stood off from the land, it at first diminished, nor was it until the next morning, when we were fifteen miles from the shore, that it amounted to fifty-seven fathoms. The south-west extremity of the chain of mountains mentioned above, and which runs through the whole valley from S. W. to N. E., I take to be the Spenberg of the Dutch. It is a lofty rounded mountain lying in latitude 47° 33′, and longitude 217° 40′; and the north-west end of this chain is in 47° 43′; Spenberg, in the chart of the Dutch discoveries, being in 47° 40′. As Sachalin, in the latitude of 47½°, is not more than thirty-six miles wide, it is very probable that the highest point of this chain of mountains, Spenberg itself, is the same as the Pik Bernizet mentioned by La Perouse, which, in his chart, amended according to Dagelet's correction tables, lies in 47° 25′ N. and 217° 38′ 40″ west of Greenwich.

On the next morning, the 20th May, as the wind was become more moderate and the weather clearer, I again steered towards the land: at six o'clock we distinguished the Spenberg bearing S. W., and a projecting point of land N. W. by N., of

which by eight o'clock we had approached within five miles, when it still lay in the same direction. This point, which I have called cape Muloffsky *, lies in 47° 57′ 45″ N. and 217° 16′ 00″ west. From hence the coast follows a N. by E. direction, consisting of lofty mountains, divided by deep valleys, the shore being steep and rocky. Our course was N. by E. parallel with it, and our distance, at the utmost, five miles; the depth of water being from thirty to forty-five fathoms over a ground of stiff clay. In several places we observed inlets between the rocks, where, in all probability, a safe anchorage might be found; and had the wind not blown pretty fresh directly upon the land, I should not have failed examining one of these inlets, situated in latitude 48° 10′, the width of which appeared rather considerable. The whole country afforded us a much more agreeable prospect than those more to the southward, which, since our departure from Japan, had fallen beneath our observation. The white steep coast, with its inlets and hills in the back ground of moderate height, various in form, and covered with the most beautiful verdure, with alternate valleys richly wooded, gave us a very favourable idea of this part of Sachalin, and it had, undoubtedly, a most decided advantage over the middle and northern Sachalin, which we afterwards visited.

We now distinguished farther inland several chains of moun-

* In honour of my first commander in the navy, the brave Captain Muloffsky, who, eighteen years before, was chosen as the chief of a great and important voyage of discovery, which a hateful war, in which he himself gloriously perished, prevented from taking place. He died on the 17th July, 1789, in the battle near Bornholm, at the early age of twenty-seven, it being my sad lot to witness his last moments.

tains running in a north and south direction: the last, probably the centre chain of mountains of the southern Sachalin, was of considerable elevation; quite covered with snow; and its highest summits concealed among the clouds. At eleven, as we were unable to weather the northernmost point of land we saw, I put the ship about: this point is formed by a high mountain lying close upon the beach in a north and south direction; and is the more easily known from being altogether isolated, except that to the northward, about twelve or fifteen miles from it, there is another group very unlike this, and apparently consisting of four separate mountains. The coast between these, with the exception of a peak of moderate height, is quite low. This cape, which lies in 48° 21′ 00″ N. and 217° 10′ 00″ W., I have named after the celebrated English hydrographer Alexander Dalrymple: at the time we wore the ship it bore N. by E. of us, when, bearing N. N. W. was a mountain of no great height, but of a form which rendered it easily to be distinguished: its summit being quite flat, and both sides appearing to have been cut down, as it were, to its base. This mountain lies in 48° 15′ 00″ N.

We spent the remainder of the day and the night in tacking, but found the next morning, the 21st May, that we had made but very little progress. The wind that was constantly at E. N. E. now died away so completely that the ship was scarcely manageable; and the weather thickened, and the atmosphere became loaded with snow clouds. Towards evening we had a fall of snow; the quicksilver in the thermometer sinking to the freezing point.

At four in the afternoon cape Dalrymple bore due west: from thence the coast assumes a northerly direction; the same course we steered until the evening, and I lay-to throughout the night: the depth, at a distance of ten miles from the shore, being thirty fathoms. We could not yet distinguish the bottom of the bay, although, by the Dutch charts, we had already reached the parallel of that of gulf Patience, and at four in the morning we set all sail, and steered towards the coast, over which a thick fog was suspended. A high promontory projecting very much to the eastward, and which the day before we had taken for an island, bore N. N. W. This promontory, from whence the coast runs, as before, to the northward and a little to the west, lies in 48° 52′ 30″ N. and 216° 58′ 30″ W., and I have called it cape Soimonoff, in memory of a worthy naval officer of the time of Peter the Great. At length, about ten o'clock, we perceived land to the N. E. consisting of high mountains covered with snow, and we seemed to be now approaching the bottom of the bay, the depth of water decreasing gradually. At noon we had an observation in 48° 59′ 21″ N. and 216° 51′ W.; the depth, over a green clay, being then eighteen fathoms. There was still no land visible in the back ground, and I did not relinquish my hopes of finding a passage here, feeling convinced that Captain Vries did not examine the whole of the bay, as was sufficiently proved by the error in the latitude, as well as by the soundings laid down in his chart, in no place less than thirty-two fathoms. My hopes notwithstanding soon fell to the ground; for at two o'clock we perceived a low land to the northward, and a flat beach overgrown with wood, stretching from N. N. W. to E. N. E.; and far inland we distinguished lofty snowtopt

mountains, except in one spot, where an even country stretched away to the northward as far as the eye could reach. Without altering our course, which was N. N. W., I stood in till within five miles of the land, where the depth was eight fathoms, over a bottom of clay: a number of branches of trees, and the freshness of the water, which Dr. Horner found to be two grains lighter than that in Aniwa bay, pointing out the vicinity of a great river. As I wished to obtain sight of its mouth, I sailed round the bay, altering my course gradually from N. N. W. to E. by S. and in a N. E. direction we discovered two, the northernmost and largest of which, at three o'clock, bore N. W. 72°. The entrance of this river, which I named the Neva, is upwards of half a mile wide, and lies in 49° 14′ 40″ N. and 216° 58′ W. I continued my course E. by S. along the northern shore of the bay, wishing to reach the eastern limit, and then from this coast to run back to the southward, unless we should meet with any secure anchorage at its N. E. point. The depth was from seven and a half to nine fathoms. At seven in the evening we perceived the eastern limit of the bay, from whence it appeared to take a southward direction; but the wind was now so calm that at eight we let go the anchor in eleven fathoms, over a clayey bottom. At four the next morning we had a gentle breeze at south, and I immediately weighed, directing my course to the southward; but by seven o'clock another calm obliged us again to anchor, scarcely three miles distant from the spot we had just quitted. The depth in this run was from eleven to eight fathoms and a half, the ground alternately rocky, and of a clayey nature. We saw that the north coast of the bay, farther to the eastward, was again mountainous, and the beach no longer flat, but craggy. We were about four miles from the nearest land, and no where

perceived any symptoms of this part of Sachalin being inhabited. As the calm to all appearance was likely to continue throughout the day, Lieutenant Ratmanoff went in the boat to examine the east part of the bay, and the nature of the country in that direction; and returned at five in the afternoon, just as we had got under sail with a north-east wind. He had met with the mouth of a river, only fifteen fathoms wide, and seven feet deep, and which he described, having proceeded up it about five miles, as abounding in fish, and the wood in the vicinity of its banks as well stocked with game. He had seen no houses; but in several places near the river the marks of fires, and three Ainos in their seal-skin dresses, to whom he made signs to approach, but they went off the moment they perceived him. He found the land covered in parts with mud five or six feet deep, and in others with a rich black earth. The trees for the most part were of the thorn kind; stunted in their growth, and very few of them with any foliage; the snow was still lying in several places. The depth of water in the bay from the ship directly north, in which line Lieutenant Ratmanoff first proceeded, gradually diminished from nine to four fathoms, and he found this depth at a distance of scarcely half a mile from the shore. To the east he could meet with no bay where a ship might lie with any degree of safety, and the Dutch seem to have been unable to find any anchorage here, except that between Robben island and the east side of Patience bay; where even, according to their charts, the depth exceeded thirty fathoms. The latitude of our second anchorage was 49° 13′ 53″, the longitude 216° 11′ 30′ west: the variation of the needle by a mean of several observations 0° 38′ east.

As the weather was very thick, the barometer having fallen since the morning, and the wind favoured our sailing out of the bay, I gave up my purpose of proceeding with the ship farther to the eastward, for the purpose of examining the whole east side of the bay as far as Robben island. If the situation of the rocks round Robben island and cape Patience be determined, no prejudice can ensue either to geography or navigation by not examining the channel which divides the island from the cape, as it will scarcely be ever thought necessary to navigate it; besides, as the ship Castricom anchored here for some time, this must be better known, at least as to the relative situation of these two points, than almost any other part of the bay: I therefore bent my course southward.

By our observations the outermost and northern boundary of gulf Patience lies in 49° 19′. In the Dutch chart the latitude is 49° 00′. They have also laid down another bay in 49° 25′ to the north-east of this; but I am quite convinced that it does not exist, for we could clearly distinguish the direction of the north coast of the bay, first east, then E. by S., and finally due south. During the three days we continued in this bay our observations coincided perfectly with the calculated latitude.

As I was persuaded that the situation of Robben island, and of the surrounding reef of rocks, was incorrectly described in the chart, and the night was dark and stormy, I steered under reefed topsails S. S. W. The depth, which from nine o'clock had gradually increased from nine to twenty-seven fathoms, now began to decrease, and this circumstance led me to imagine, that notwithstanding our westward course we were still to the east

of Robben island. I therefore altered my course about midnight to the S. W. until day-break, and then steered S. E. by E. in the hopes of seeing the rocks, the position of which it was of so much importance to ascertain. The wind was now more moderate, and the weather much clearer. On the 24th May, a little before noon the sun broke through the clouds: our latitude by observation was 48° 23′ 50″; but this might not be correct within a minute or two, the horizon not being at all clear. At half past twelve we perceived the dangerous reef of rocks that surrounded Robben island, distant about three or four miles, stretching from N. N. W. half W. to N. by E., and the waves breaking violently over them. To the northward there appeared, as far as the eye could reach, a large field of ice, under which the reef, in all probability, continued, and perhaps prevented it from driving farther in this direction; and we could see to the eastward partial breakers, to a very considerable distance. The depth was thirty-nine fathoms, over a clayey bottom; and after sufficiently ascertaining the situation and extent of this reef I stood to the southward: the weather being so thick, occasioned by a drizzling rain, that we soon lost sight of it, and our soundings gradually decreasing to such a degree, that after running about six miles S. S. E. we found, upon heaving the lead, only thirty-five fathoms. As we had seen, on the 10th July, the north and east sides of this reef, and now saw the southern and western sides of it, its length and position are accurately determined. The north-east point lies by our observations in latitude 48° 36′, and longitude 215° 27′, and that part of it which may be considered as the south-west extremity in 48° 28′, and 215° 50′, so that its whole circumference is about thirty-five miles. In the Dutch charts the south-

west end is in 48° 24′; but in Arrowsmith's, and the charts on La Perouse's atlas, 48° 05′, and 213° 54′ longitude; the latitude is, consequently, half a degree too much to the south, and two degrees too much to the westward.

Pursuing a S. E. course, the depth gradually increased to seventy fathoms. On the 25th at day-break we steered under reefed topsails east, the wind at the time blowing fresh from N. N. E. with a heavy swell from the east, and dark foggy weather. Towards noon it cleared up, and we obtained an observation as well of the latitude as of the longitude, namely 47° 39′ 04″ N. and 215° 15′ 52″ W.: the same as results from the tables I corrected in Kamtschatka. The wind was now so much abated that we not only took the reefs out of our topsails, but were able to carry our top-gallant-sails, and by the close of the day it had completely died away. After a calm of short duration we had a light air in the night from the westward, by favour of which I steered to the northward, in order to reach cape Patience: we had no soundings with one hundred and fifty fathoms. At seven in the morning of the 26th we saw some ice, which to the west and north-westward was in one solid and continued mass; but to the N. E. and E. S. E. in small detached pieces, and decreasing in size the farther they lay to the southward. This compelled me to shift my course to E. by S. and after weathering all the fields of ice we could perceive, I again steered to the northward. About noon we saw some fresh fields of ice, which once more compelled us to hold an eastward course; and as throughout the night we could hear the breaking of the sea upon them, we passed them under very easy sail. The next day we perceived so great a quantity of ice to

the N. W. that we were reduced to steer S. E. in order to keep clear of it. I concluded that more was to be met with to the northward, as already in 48 degrees the navigation is attended with danger; and therefore determined, as the farther examination of Sachalin could not now be effected, to return immediately to Kamtschatka, whither likewise M. Resanoff wished to proceed, and then come back to cape Patience with as little delay as possible. After weathering all the ice I steered towards the Kuriles, which I wished to pass in the parallel of 43 degrees, in the hopes of ascertaining, by this opportunity, the position of some of the islands in the middle of that chain. Of these only the four first—that which is called the eleventh, or the island of Raukoke, and which, judging by his chart, Captain Sarytscheff must have seen, and those which form the straits of La Boussole—are hitherto correctly placed, and it was necessary to fill up these important gaps, if any opportunity occurred for so doing; for I could not devote any time expressly to their examination.

On the 28th we had a high wind from W. N. W. which increased towards evening to a storm, and conceiving myself to be only a short distance from the Kuriles, I lay to under a reefed topsail and stormsails, the sea running high and irregular; at midnight the wind fell a little and veered to the N. W. At daybreak we distinguished land bearing S. E. and E. N. E.; but owing to the thick weather we immediately lost sight of it again. The wind had now become so moderate that we were enabled to carry all sail, and at eight o'clock we perceived, bearing E. N. E. and at a short distance from us, a high peak, and I therefore steered between this island and the land we had

seen in the morning in the S. E. which must have been the twelfth island, or that called Matua. The strait between these two, from the description of the Kuriles in Pallas's new northern additions, is thirty miles wide, and perfectly safe; but in Sarytscheff's chart it is only twenty. Our latitude by observation at noon was 48° 02′ 00″, our longitude 207° 07′ 24″; the peak at that time bearing N. E. 71°, distant from ten to twelve miles. This, which is one of the most remarkable points in all the chain of islands, I have called Sarytscheff, in honour of the admiral of that name. After a calm of some hours, during which a strong current running between the islands carried the ship bodily to the westward, we had a gentle breeze at south, which forced us to leave peak Sarytscheff to the S. W. Between this island also, and the next to the northward, the strait in Sarytscheff's chart is thirty-five miles wide, and in Pallas's description it is even stated at seventy; but we soon found the width of these straits very incorrectly laid down, and the greatest precaution necessary in the vicinity of these dangerous islands. At twelve at night the wind, which had hitherto been nearly calm, began to freshen; and I brought to, the night being dark, and peak Sarytscheff alone visible, bearing at that time S. E. about fifteen miles off. At eight in the evening, when we were the nearest to the island called Raukoke, I had sounded several times, but without finding ground with a line of one hundred and fifty fathoms. On the 30th May, at three in the morning, as the day began to break, I made all sail, and steered E. N. E.; the wind was S. S. E. coming in heavy squalls with snow and rain. In half an hour's time we perceived on a sudden land right a-head of us: it was a lofty island of small circumference, and a flat surface, having on its south-west point an insulated hill lying close down to the

beach; and on the north-west end an abrupt precipice, terminating in a low point. We sailed round this island at a distance of two miles at the most: the waves broke with violence against its rocky shore, upon which no landing appeared practicable, and an innumerable quantity of birds, probably its only inhabitants, hovered around it. This, which must be the tenth of the Kuriles, and therefore by Pallas's description the one called Mussir, lies in 48° 16′ 20″, and 206° 45′ 00″; eight miles due north of the island of Raukoke. I now concluded that we should pass no more islands, our course lying E. by N., E. N. E., and N. E. by E., and the ship's run with a fresh S. E. wind being nearly five knots; but to our no small astonishment we perceived at eleven o'clock four small rocks, one of them scarcely above the surface of the water, by which we sailed at the distance of about two miles, and at noon we had them well to the westward. The wind was now due east and high, with thick dirty weather. As our course with this wind lay directly towards the land, the vicinity of which, after seeing the four rocks, I had some occasion to dread, I put the ship about to S. S. E.; but the current set so strong to the N. W. that it carried us rapidly towards the rocks. However, as the sea was quite smooth, notwithstanding the high wind, and the ship made eight knots upon a wind, I did not abandon all hopes of being able to weather them; but after six hours attempt we were convinced of the impossibility of doing it. To the N. E. there appeared a high island in the fog, which we were very near, and the breaking of the sea, occasioned by the violent current, often led us to believe the vicinity of some reef, although we never could get ground with one hundred and fifty fathoms. Nothing farther remained for us therefore, particularly as there was every appearance of an approaching storm,

(the barometer having suddenly fallen to twenty-eight inches seven lines) than to endeavour to find a passage into the sea of Ochotsk. Accordingly I shortened all sail, and about half past six steered under close reefed topsails S. W., W. S. W., W. and W. by N.; and we had reason to consider ourselves as extremely fortunate, that, in running eight or nine knots in so violent a storm, and during such thick weather as prevented our seeing fifty fathoms around us, we did not strike upon some island or rock, which in such a night would have been inevitably attended with the loss of the ship and the whole crew. So little dependence could we place on the charts of this chain of islands, hitherto published, that I was obliged to steer quite at a hazard for the sea of Ochotsk; and I ran until one in the morning W. and W. by N., and then lay to the wind. At three in the morning of the 31st May it blew violently from N. N. E. with a heavy drifting snow; the quicksilver in the thermometer falling to one and a half degrees below the freezing point. At ten the storm abated, the weather cleared up, and we even obtained an observation for the latitude and longitude, from which it appeared that there was only a trifling current to the N. W.: a proof that the currents, violent as they are between the Kuriles, are not always in the same direction, and consequently depend on a regular change of ebb and flood. I have named the group of rocks discovered by us (die Falle) the Trap. It lies between the islands Ikarma and Mussir, and about fifteen miles S. E. by E. of that called Ischerinkotan. Although the thick weather would not allow us to make any observation so as accurately to determine the position of these dangerous rocks, I nevertheless think that 48° 36′ N. and 206° 16′ W. cannot be far from their real situation.

As the weather appeared to mend, and the wind had got round to the north-westward, we made all sail, and I held my course to the N. E. The next day, the 1st June, we had a thick fog, which prevented our seeing the high peak on the island of Onnekotan; nor was it until just before noon that we saw land to the north, which deprived us of all hope, the wind being now northerly and very moderate, of passing the Kuriles between Poromuschir and that island, as I had intended. We were about two miles distant from the shore when it fell perfectly calm, and the ship drove so much to the S. W. that I was obliged to lower a couple of boats in order to tow her off the land. The depth was thirty fathoms, and the bottom a fine sand. At half past four we had a fresh breeze at N. N. W.; and I therefore determined to leave Onnekotan to the northward, and steer between that and the island called Charamukatan. According to Pallas's description of the Kuriles, the strait which divides these islands is six werst, or three miles and a half wide. Monkanruschi at the time bore N. by W., the south end of Onnekotan S. E. 18°, and the north end of this island N. E. 33°, enveloped in mist. At six o'clock we perceived Charamukatan to the southward, and soon after Schiaschkotan S. W. 42°: there are lofty peaks upon both of these islands, which render them visible at a great distance. At eight o'clock we had entered the channel, and, owing to the freshness of the wind, by ten had completely passed it, upon which I steered to the eastward: these straits are eight miles wide; the shores on either side are safe; but as the current is very strong, I think it would prove rather dangerous to pass them with a moderate breeze. However, as a ship may pass between most of the islands in perfect safety,

and choose, according to the direction of the wind, which channel to run through, this one may easily be avoided.

The next morning I steered N. E.: at seven we distinguished the south end of Poromuschir, a very high land, entirely covered with snow. At noon our latitude, by observation, was 49° 19′; but as the sun appeared but very faintly through the mist, this may not be correct within a minute or two. The peak in the island Charamukatan is in 49° 08′ N., and 205° 20′ 50″ W., bore then S. W. 87°. The south point of Onnekotan N. W. 85°, its northern end N. W. 62°, and the south extremity of Poromuschir N. W. 50°. The variation of the needle was this morning found to be 5° 01′ east: Captains King and Sarytscheff, in like manner, found its variation to be, a little to the northward of this spot, four or five degrees; our observations the preceding day made it only 1° 27′ east; and the variation during the whole voyage was never more than two degrees west.

Throughout the night the wind was high, gradually veering from W. to N. W.: the next day being hazy we could not distinguish the coast of Kamtschatka. At noon our latitude was 50° 38′, and the longitude 202° 2′ 50″, thirteen minutes more to the southward, and likewise to the westward, than the ship's reckoning. At two in the afternoon we discovered the coast of Kamtschatka, stretching by the compass from N. W. 43° to N. W. 60°. At four o'clock we perceived, through the mist, bearing N. W. 46°, a high peak, of which there are several on this coast: and this, which is the southernmost, as well as the loftiest, bears in our charts the improper name of "the mountain ascertained by bearings." I have given it another name,

Koscheleff, that of the then worthy governor of Kamtschatka. It lies in 51° 21′ 10″ N. and 203° 01′ 39″ W. At six o'clock we perceived, though not distinctly, the island Sumschu, the lofty island Alaid, and cape Lopatka: at the same time we had a lunar observation, according to which the longitude was 202° 09′ 30″. Peak Koscheleff then bore N. W. 61°: the meridian altitude of the moon, at nine o'clock, made the latitude 50° 57′. At eight in the evening cape Lopatka bore S. W. 86° 30′; peak Alaid S. W. 83° 30′. During the night we continued our course N. by E. along the coast, without ever losing sight of it.

At eight the next morning, the 4th June, cape Lopatka bearing S. W. 60° 30′, and peak Awatscha in a line with cape Poworotnoy N. E. 11° 30′, we had soundings in one hundred and thirty fathoms over a bottom of fine sand; our distance from the nearest land being, at the time, seven miles. There are a number of small bays along this coast, particularly to the south of cape Poworotnoy, some of which are pretty roomy, and would afford a good anchorage were they not exposed to the east wind. At noon we observed in 51° 53′ 20″, and 201° 24′ 30″, at which time we were six miles from the nearest land: cape Poworotnoy then bore N. E. 5° 30′; peak Awatscha N. E. 8° 30′. The other peaks to the north and south we could distinguish very clearly, as well as the whole coast from cape Poworotnoy to the entrance of Shipunskoy Noss to the N. E. Captain King calls the cape which we name Poworotnoy, Gavarea; and I have enquired after this name in Kamtschatka, but it is not known there. In Russia this cape is called Poworotnoy, because the coast of Kamtschatka, which had run in a N. E. direction from Lopatka to this cape, here takes a turn, and runs due north until the en-

trance of Awatscha bay. It is formed, properly speaking, by three projecting points of land, of which the true cape Poworotnoy is distinguishable by a conical rock lying a short distance from the land. By our observation it is in 52° 23′ 25″ N. and 201° 11′ 50″ W.: a high hill, which has likewise obtained the name of Poworotnoy, lies to the westward, and a little to the north of the cape.

Throughout the night, and the next morning, we had alternately a gentle southerly wind and a thick fog, which cleared away towards noon, when the entrance bore N. N. W., scarcely six miles distant. The wind continued moderate from the S. E., and it was not until six in the evening that we cast anchor in the harbour of St. Peter and St. Paul, forty-eight days after leaving Nangasaky. Here I set on shore the embassy, together with the guard of honour we had carried from hence; I also landed, and put into the crown magazine the salt and part of the rice which was given to my ship's crew in Japan; completed my stock of wood and water; and on the 16th of June was again in Awatscha bay, intending to put to sea with the first fair wind, and continue the interrupted examination of the island of Sachalin. Unforeseen circumstances, however, detained us longer than it was my intention to have staid, as will be seen in the next chapter.

I must also mention an event which occurred on board the ship on this voyage, and gave me great uneasiness. Soon after our departure from Nangasaky the small-pox broke out upon one of the soldiers who had lived on shore with the ambassador: he was a native of Kamtschatka, where few of the inhabitants

and none of the children have hitherto had that disorder, and I was fearful lest there might be several persons on board who had never been inoculated. This disorder is not only very difficult to manage on board ship, but might also have eluded every effort to prevent its spreading upon our arrival in Kamtschatka: fortunately, it was discovered upon a strict examination, that all our people had had the small-pox, and there were only two sailors of whom we were doubtful. As the matter of the patient was of the best kind, we took the precaution to inoculate them both, but they were found to have had the disorder, the inoculation not taking effect. Although the matter had dried up in the soldier several weeks previous to our arrival, and Dr. Espenberg was no longer apprehensive of contagion, nevertheless the greatest precaution was necessary, both with regard to the patient and the other persons who were to remain in Kamtschatka; and some days previous to our arrival I ordered the clothes, linen, hammocks, bedding, in short, every thing belonging to the soldier who had been ill, to be hove overboard, and all the things belonging to the persons who were to remain in Kamtschatka to be fumigated after Smyth's method. The hammocks of all the crew were well washed in boiling water and soap, and their beds and clothes aired daily. In all the time of our stay not the least intercourse was permitted with the people of the town; and the soldiers who were disembarked were compelled to perform quarantine for three weeks. The smallness of the population in Kamtschatka, and the unfortunate example of 1767, in which year the small-pox was conveyed from Ochotsk to Kamtschatka, and carried off thousands, rendered these measures of precaution, which may seem to have been carried too far, very necessary. As Kamt-

schatka is liable to receive this horrible complaint from any ship that may arrive, humanity requires that inoculation should as soon as possible be introduced there; and this I think might be better done by way of China or Manilla than through Ochotsk; but, at all events, there should be no delay in making the attempt even from Ochotsk.

CHAPTER IV.

STAY AT ST. PETER AND ST. PAUL.

Some Account of the Ships of the American Company—Wretched Condition of the Seamen on board of them—Description of the Maria—Account of the Promüschleniks, or Furtakers—Proposals for the Improvement of their Condition—Lieutenants Chwostoff and Davidoff the first naval Officers taken into the Service of the American Company—Advantages which the Company have already derived from their Service—We hear that the Governor will shortly arrive at St. Peter and St. Paul—Departure of M. Resanoff—The Governor's Arrival—Danger incurred by him in passing the Awatscha River—Short Account of his Journey to Tshiginsk—Meeting with the Chief of the Tschuktsches—Ball at St. Peter and St. Paul—The Nadashda quits Kamtschatka to complete the Survey of the Island of Sachalin.

We found in the harbour of St. Peter and St. Paul the imperial transport "Theodosia," commanded by —— Astafieff, and the Maria, a ship belonging to the American company. The Theodosia had arrived in the month of October of the preceding year from Ochotsk with provisions for the Kamtschatka battalion, and the Russian inhabitants of the establishment: she was quite a new ship, and the first vessel in these seas that was rigged as a brig; no others having hitherto been employed than galiots. The Maria, likewise a new ship, and also fitted out as a brig, was very inferior to the Theodosia, not only in her rigging but in her construction: she had sprung so large a leak immediately after leaving Ochotsk, that it was thought dan-

gerous to continue the voyage to Kodiak, where she was bound, and she had been forced to run into Kamtschatka in September, some days after our arrival in Japan. She was commanded by Lieutenant Maschin of the navy, whom the American company had recently taken into their service, with three other naval officers, Lieutenants Seckin, Karpinskoy, and Borissoff. The latter of these had sailed for Kodiak from Ochotsk on board of the company's ship the Elizabeth some months before Maschin; were equally unable to reach the place of their destination; they were forced to run into Unalaschka, and to pass the winter there. From a total want of wholesome provisions and comfortable lodging; deprived of every thing that might, in any way, alleviate the misery of passing a long winter in Unalaschka; the scurvy unavoidably broke out among the crew, and eight of their best people fell a prey to it. This dreadful disorder is unfortunately so common, and has spread so much on board the ships belonging to the American company, that a number of people die of it on every voyage; nor do they suffer less on shore. By comparing the number of those who quit Ochotsk for Kodiak annually, with that of the persons who return, it will easily be perceived how very great must be the proportion of those who die in America and in the islands.

Dazzled by fabulous reports of the state of affluence easily attained, the Promüschleniks sail to America: and it is their invariable destiny to pass a life of wretchedness*. Few only

* Every one who carries on a trade is called Promüschlenik. But as the sole occupation of these people is the chase of wild beasts, which are valuable on account of their furs, the Russian word may be translated by fur collector.

have the good fortune again to touch Russian ground, and very few indeed attain the object of their wishes to return to Europe. None but able handicraftsmen, and people towards whom the agents of the company think it to their advantage to diminish a little of their unbounded authority, spend a tolerable life in America and in the islands: but these, being themselves under the control of the agents of the company, easily become tyrants in their turn over the crouching Kodiakers and people of the Aleuti.

It is true, I have neither been in Kodiak, Unalaschka, nor Sitka; but if I may judge from what I witnessed on board the Maria, and what I heard from respectable authority of the company's establishments in Kodiak, nothing more wretched can be conceived than a residence in their possessions *. Every one would fly from even the most beautiful

* My expressions, apparently too harsh against the conduct of the company's agents, may, perhaps, be censured by many; but any one who has witnessed the scenes which I here describe will do me the justice to acknowledge that the colours I make use of are any thing but glaring: nor would they have been so had I printed my observations as I noted them down at the time and on the spot. These accounts must first be made public before the people described can meet with commiseration; and I have therefore chosen to expose myself to the anger of a number of persons for whom, in other respects, I entertain the highest regard, rather than pass over in silence all that I have seen and heard. Besides, any one who judges with impartiality will readily perceive that my blame only attaches to a few subordinate agents, and not, in any way, to the directors of the American company: my remarks are merely intended to prove how much people, of the class from which the company generally selects its agents, abuse the authority intrusted to them. The great distance from the chief establishment renders it easy for them to conceal their scandalous conduct entirely from the directors, or, at any rate, so to gloss it over as to make it

and the best-gifted country if he knew that he should be exposed in it to the boundless will of a single person, often of a most immoral and cruel character, and that he must not expect to find even a shadow of justice. A civilized man would hardly fix upon Nukahiwa or Tongatabu, where the climate is fine, and provisions in abundance, as his residence; yet, what are Sitka, Kodiak, and Unalaschka, compared with these islands? Train oil and the flesh of the sea-lion are here among the choicest of the provisions: every one must obey the iron rule of the agent of the American company; nor can there be either personal property or individual security where there are no laws *. The chief agent of the American company is the boundless despot over an extent of country which, comprising the Aleutic islands, stretches from fifty-seven to sixty-one degrees of latitude, and from one hundred and thirty to one hundred and ninety degrees of east longitude. The population of the islanders annually decreasing, and the wretched condition of the Russians living there, sufficiently proves that, from their first migration to these islands and to the American coast up to the present moment, the company's possessions have been entrusted to people who were, indeed, zealous for its own advantage, but frequently more so for that of a few subordinate agents.

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appear in a favourable light. Perhaps it is impossible to check this evil, already so deeply rooted, otherwise than by the most careful choice of the agents to be employed in the distant settlements, and the vicinity of a severe and watchful superintendance. The various measures recently adopted by the directors, who are too enlightened not to watch over the advantages of their possessions and good of their subjects, to keep their agents within bounds, confirm the truth of what I have said on the subject.

* There are no courts of justice in Kodiak, nor any of the company's possessions.

Lieutenant Davidoff, during his stay in Kodiak and the Aleutic islands, and in America, collected some very important notices upon these possessions of the company, a fragment of which, upon the relative situation of the islanders and their conquerors, he imparted to me. As M. Davidoff proposes on his return to St. Petersburg to publish his observations; the manner in which the agents of the American company treat the inhabitants of the islands who are subject to them will appear by his work*. But in order to prove how much selfishness has extinguished all feelings in these distant countries, and with what indifference even Russians are treated by their countrymen, I will here shortly describe the fate of seventy of them on board the brig Maria.

A vessel of about one hundred and fifty tons, like the Maria, is too small for a crew of seventy men, independent of the captain, the officers, the company's agents, and other passengers, even if it has no particular cargo: but this ship was completely laden. There was scarcely sufficient room for the sick, the number of whom amounted to twenty, if they were to enjoy any comfort; and consequently there was not an inch left between decks for upwards of fifty persons. These were therefore obliged either to sleep upon deck, which on a voyage from Acapulco to Manilla is not impracticable, but in the raw climate of Kamtschatka and Kodiak must be extremely pernicious to the

* It is well known that this distinguished officer had the misfortune to be drowned in the Neva, together with his friend and companion Lieutenant Chwostoff, in the autumn of 1809. The manuscript of his voyage is in the hands of Admiral Schischkoff, and will be printed by the admiralty.

health, or they must literally have lain one upon the other. Hammocks they had none: every one lay down where he could, in his clothes, and of these there was the greatest want: filthiness and laziness were their general characteristics; some few wore shirts, but most, in spite of the heat of June, were wrapped up in greasy furs; they almost all had long beards, and never attempted to wash their hands and faces.

We went to visit the sick, and it is impossible for me to describe the shocking, the disgusting state in which we found them; nearly all appeared to labour under incurable scorbutic and venereal sores, although they had been ten months on shore, and had enjoyed the assistance of the surgeon of St. Peter and St. Paul. Even of this they were now about to be deprived, and on the point of being removed, by a long and tedious navigation, to places where they must either forego all surgical attendance, or obtain it from people totally unskilled in the practice. I was curious to learn on what food the sick were kept, and was shewn two casks of salt meat destined for them. I requested to see a piece of it; but on opening the cask so disgusting and pestilential a smell took possession of the hold as compelled me instantly to quit it. Two tons of this stinking salt meat, and some sacks of mouldy black biscuit, were the only nourishing provisions on board for twenty invalids, for to this number they actually amounted before the Maria left St. Peter and St. Paul; and with such provision for the sick it may be a matter of curiosity to learn what was the food of the remainder. The chief article was train oil, and dried sea-lion flesh, the best to be had in Jukula, or dried fish; but of this there was but a very small quantity. Instead of biscuit they receive, but not daily,

a mixture of rye-meal and water, which, in the language of the Promüschleniks, is called Burduk: brandy, so wholesome a beverage in this cold, foggy sea, is never given to them.

Although none but vagabonds and adventurers ever enter into the company's service as Promüschleniks, it is nevertheless but just that attention should be paid to their lives and health: they are men who have indeed bartered their strength against a certain degree of profit; but they have not offered themselves a sacrifice to hunger, and the most loathsome diseases to which they are, however, exposed. The Promüschleniks are not of the class of criminals; if they have been guilty of any crimes they have met with the punishment assigned by the laws, and of these there are none that inflict a double chastisement, and the second even more cruel and barbarous than the first. But let us suppose every Promüschlenik to be a rogue, and that it would be a blessing to Russia to be freed from such men; it is then the more cruel to suffer the innocent Americans, who have already lost every thing, to be oppressed and ill-treated by them—and every Russian, although the lowest and most dependent slave of an agent of the company, is allowed to tyrannize, with impunity, over the natives of the country. If, in fact, none but vagabonds and criminals enter the company's service as Promüschleniks, would it not be equally advantageous to Siberia, a country of so poor a population, and beneficial to the inhabitants of the islands and continent of America, and even to the company itself, to prohibit the conveyance of them from Ochotsk to America? If the intercourse between the ports of the Baltic, the islands of the Eastern Ocean, and the coasts of America, the advantages of which this our first trial will suf-

ficiently prove, is to be continued, the company should be allowed to send people from the Baltic to America to procure their furs. On the voyage they would become skilful seamen: the greatest attention should be paid to the choice of these people, and if their conduct during the voyage has been bad, the captains of the ships should be directed to bring them back, that the poor inhabitants of those countries might be relieved, as much as possible, from a set of worthless, immoral characters, who so easily become tyrants. If this should not have the desired effect, still the orders calculated for the benefit of these neglected people, and the humane intentions of the government, would certainly not remain unknown to them, and would undoubtedly produce a greater confidence in their government, and attachment to their conquerors, and prove a much safer guarantee of these possessions, than power or force. The Promüschleniks who wish to visit their country, should, besides, be allowed to return to Russia on board of the homeward-bound ships, with whatever property they may have collected: while at present obstacles are frequently thrown in the way of their return, and even if they are conveyed to Ochotsk they generally lose there the greatest part of what they have acquired. As they are not permitted to quit Ochotsk until their accounts with the agents are closed, and their stay is, by this means, frequently protracted, idleness, and sufficient credit to procure whatever they want, leads them into a debauched course of life, the consequence of which is, that they not only obtain nothing of their demands, but frequently incur new debts with the agents of the company. Thus it happens that very often these poor people, who, after an absence of several years from the place of their nativity, think of returning with the little property they

have been enabled, by dint of infinite pains and trouble, to amass, and of spending the remainder of their lives comfortably with their relations, are obliged, after a short time passed in debauchery in Ochotsk, to return again to Kodiak: while if they had the means of getting by sea direct to St. Petersburg, they would then be certain of joining their relations; and whatever just demands they might make on the company would not be rejected and withheld from them there. Such a proceeding would animate others to follow their example; and there would be no occasion for adventurers to send to America.

Seamen in the service of the American company, or as they are called, "fur collectors," lead, as I have already remarked, a most wretched life. They are destitute of clothes, linen, of every kind of refreshment, and even of provisions. It cannot then be a matter of surprise, if, under such circumstances, and in a cold, foggy climate, the strongest man should fall a victim. Even of water there is frequently the greatest scarcity: for the casks having merely wooden hoops cannot long remain tight, but soon become leaky, and the crew, during the latter part of the voyage, is often exposed to the greatest distress. A small vessel belonging to the company arrived from Unalaschka during our stay at St. Peter and St. Paul: it had been five weeks on the voyage, and in the last eight days had been almost without water; the whole remaining stock, at the time of its arrival, being about ten or twelve pints.

The Promüschlenik leads a miserable life, not only on board ship, but his situation is equally deplorable on shore. The seamen belonging to the Maria, who had passed the winter in

Kamtschatka, lived, for want of houses, in caverns under ground; and on land too, as well as at sea, they are destitute of wholesome provisions. Even of salt, so necessary to season his food, he is deprived: sometimes he has bread, but, owing to the difficulty of conveying meal, seldom in sufficient quantity to satisfy him. Brandy is the only article of which there is no want; but, unfortunately, the excesses into which this leads, so long as the men continue on shore, contributes as much to the destruction of their health, as the total privation of it while they are at sea. Every means are used to seduce and stimulate them to drink brandy while on shore; they are liberally supplied with it on credit, when they involve themselves so much in debt that they have infinite difficulty in recovering from the incumbrances thus imposed upon them. I cannot understand why it is not allowed to sell brandy at sea: if the master of the vessel were to determine the supply which every man might purchase daily, it is evident that both parties would be gainers by the traffic. The immoderate quantity drank by these people during the eight or nine winter months which they spend on land, their idle life, the inconceivable wretchedness of their habitations, and the unwholesomeness of their provisions, evidently produce scurvy, and undermine the strongest constitutions. On our return from Japan we found the five Promüschleniks whom we had brought with us from Cronstadt to Kamtschatka and left there, and who, notwithstanding the long ten months voyage, had all arrived perfectly safe, after a residence of the same length of time in Kamtschatka, to a man in the highest degree scorbutic, while my crew were in the most perfect health; and yet these people were all well-behaved and sober. They repented their determination of coming to these parts, and would gladly have

returned with us to Russia: and if in Kamtschatka the winter is attended with such hardships, how much more lamentable must be the fate of these men in Unalaschka, Kodiak, or Sitka, where neither the climate, provisions, nor houses are better than here.

Lieutenants Chwostoff and Davidoff sailed to Kodiak on board the Maria company's ship, in order to assume the command of two vessels building there. These skilful officers of our navy were the first whom the American company, in 1802, took into their service; they made the voyage from Ochotsk to Kodiak in one summer without putting in any where; and arrived in Kodiak, on the 14th November, having only left Ochotsk towards the latter end of August. Before this time it was a thing quite unheard of to execute the voyage in so short a space of time, as it had usually occupied two or three years. In the following year they returned to Ochotsk likewise at once, a thing never before done, and brought with them a cargo valued at two millions of rubles: they then proceeded directly to St. Petersburg, where their arrival occasioned no small sensation of joy; several ships, which had been entrusted to ignorant persons, having been lost. After remaining two months in St. Petersburg they again returned to Ochotsk, and thence to Kodiak. It was on this voyage they were compelled to put into Kamtschatka and winter there; and at the time I am speaking of they were preparing to continue the voyage to the place of their destination. M. de Resanoff embarked with them on board the Maria to go to Kodiak, and Dr. Langsdorff, who accompanied him there, quitted the Nadeshda at the same time as that gentleman.

On the 16th June we went into Awatscha bay to complete our provision of wood and water, which are nearer at hand there than in the harbour of St. Peter and St. Paul. On the 21st we were ready for sea, but a trifling accident occurred to prevent our departure for a few days. I did not much lament the delay occasioned by this accident, as several circumstances occurred to make me desirous of waiting for the arrival of the governor, who was shortly expected from Nischney-Kamtschatka. On the 23d of June the courier, whom we had sent to him, returned with the intelligence that he would certainly arrive on the following day, and I therefore determined to wait; the Maria, however, sailed with M. de Resanoff on the night of the 24th. The wind was favourable, and at six o'clock on the morning of the 25th she was already out of the bay.

On the 30th of June, at three o'clock in the morning, as the wind was become fair, I weighed anchor in order to put to sea. I was now doubtful whether the governor would come or not, as he had stayed five days beyond the term fixed upon for his arrival. This made me unwilling to let slip the present favourable season for exploring the coast of Sachalin; but at five o'clock the wind shifted, and we were forced again to let go the anchor opposite to Rakowyna bay.

On the 1st July, at ten o'clock in the morning, the wind, which until this day had been constantly from the southward, veered to north, and I again made immediate preparations to put to sea; but we had hardly cast loose the sails when it shifted once more to the southward. Unpleasant as this new delay was, it afforded us the satisfaction of hearing, as we did

about three o'clock in the afternoon, of the governor's arrival. I immediately hastened to the town. His journey had been retarded beyond all expectation by the great melting of the snows, which had overflown all the rivers, converting them into perfect torrents, so that he had given up all hopes of meeting us; besides that, it had rendered his journey from Nischney-Kamtschatka extremely troublesome, and frequently dangerous. Nischney-Kamtschatka is nearly seven hundred wersts from Petropawlosk, and more than half of the way to the town of Werchnoy it was necessary to navigate the Kamtschatka river in a most miserable boat, so that ten days at least were spent mounting the stream in this vessel. All this time the traveller lies extended in the boat, which is pushed forward, day and night, by Kamtschadales with long poles from the shore, who relieve each other at every Ostrog*. If this journey could be made in a comfortable covered boat, having, besides the convenience of a roomy cabin, sufficient space for all kinds of provisions, and a kitchen, as in China, Japan, Surinam, and in most of the European countries, this would, in some degree, compensate for the tediousness of a voyage of eight or ten days, where no other objects present themselves to the view than such as occasion the most melancholy impressions. In the painful position, in which the traveller is obliged to lie for so long a time, he is exposed at every instant, but more particularly during the night, to the danger of being drowned, as the boat may easily be overset either by a sudden squall, or by running upon the trunk of a tree, of which there are a great many in the river; such an accident had actually befallen

* Village.

the governor on his return to Nischney, and nothing but the attachment of one of his guides, who, at the imminent risk of his own life, dragged him on shore by the hair, preserved him from destruction.

It requires the activity and indefatigable zeal of a Koscheleff to make these journeys repeatedly. He had just returned from Ishiginsk, a town within his government, at the distance of fifteen hundred wersts from Nischney-Kamtschatka. He had performed this journey with dogs, quicker, it is true, but with the same difficulty and danger as the other by water: having visited this distant part of his province in order to quell the disturbances that had broken out among the Tschuktschers, who had reason to be dissatisfied with the Russians. This is the only nation of Northern Siberia that has not hitherto submitted, unconditionally, to the Russians, whose sway they however acknowledge, and to whom they pay tribute. They had requested the governor to be allowed to lay their complaints before him in person, and as he had promised to accede to their request during the winter, several of them had come to meet him at Kamennoi*, through which place he was to pass. The account of his meeting with the heads of this warlike nation, as the respectable Koscheleff related it, without assuming any thing to himself, made a deep impression on my mind, and cannot fail of producing the most pleasing sensation in the bosom of every humane person, particularly if we consider the country where this meeting took place.

* A small village near Ishiginsk, where the Russians, Tschuktschers, and Koriakers, meet annually for purposes of trade.

Tschetschro-Tuma, the head of the whole Tschuktschan nation, was waiting for the governor in Kamennoi with about twenty chiefs under his control, and a considerable suite: he acted himself as speaker in all their conversations; and after a short preliminary speech, delivered with great dignity and an air of much importance, he represented to the governor all the hardships under which the Tschuktschan people laboured, and which had reduced him to have recourse to complaint. He then entreated him, in the most earnest manner, not to deny them his protection, upon which all their hopes of the continuance of friendship between them and the Russians depended: this alone had induced them to come to Kamennoi to ask him personally to be their protector. "We have heard," said he, "of your severity, but likewise of your love of justice. It is your reputation which has brought us to you;—we have awaited you with great impatience during the last two years, and at length you are come amongst us;—we behold you, and are already persuaded that you will see that justice is done us." The complaints of the Tschuktschers were chiefly directed against some fur collectors of the American company, who had irritated them by all the means in their power, and particularly in their barter dealings had been guilty of every species of fraud; and they likewise complained against some of the magistrates of the district of Ishiga. "It would be no difficult matter for us," continued the ancient Tuma in this discourse, "to have slain all these Russians in a night; but we wish not to make enemies of them, and have rather chosen to refer our complaints to your justice, of which so much has been told us." After the governor had examined into the complaints of the Tschuktschers, and, upon finding them well grounded, had done

them all due justice, the heads of the nation, with Tschetschro-Tuma at their head, again returned to thank him, and request he would accept some very valuable presents of furs: but great as was the pleasure with which he listened to their acknowledgments, he refused, with the most constant firmness, to accept their presents, with the exception of a few trifles, which he was forced to take, in order not to give offence to the venerable Tuma. In return, he divided amongst them some brandy, tobacco, knives, linen cloth, and other necessaries, part of which he procured on the spot, and the rest he had purposely brought with him: but, natural as this trait was in the character of Koscheleff, it nevertheless surprised the Tschuktschers extremely. "Every Russian," said the brave Tuma, with astonishment, "and particularly such as have even the smallest authority, fancies himself justified in demanding presents from us, and, in case of the least hesitation on our part, he insults and plunders us. But you, the greatest commander in the whole country, not only take nothing yourself, although we most heartily wish you to accept something, but even make us valuable presents. Such an action as this we have never witnessed nor hitherto heard of." Hereupon he drew forth a dagger, with a broken point; "Behold, great general," continued he, "I promised my uncle, whom I succeeded as chief of this nation, never to sharpen the point of this dagger against the Russians, and I now solemnly renew my promise: never shall this broken point be sharpened against your countrymen. This you may state to your emperor."

General Koscheleff, during his stay in Kamennoi, invited Tschetschro-Tuma to a dinner, and this invitation was a source

of no less astonishment: but notwithstanding the appearance of haughty self-sufficiency which Tuma had evinced in speaking, he nevertheless did not accept it immediately.—He said, "the honour was too great: that the general was not only too great a man compared with himself, but that he was no Christian, and his nation was despised by the Russians because it did not bear the cross, the token of the true Christian." To this the general replied, "that it gave him real pleasure to eat at the same table with the chief of so brave a nation as the Tschuktschan; and in regard to religion, he was of opinion, that a good heathen was more to be esteemed than a bad Christian." This declaration of the governor's gave him boundless and indescribable pleasure: he related to all his companions, severally, what he had heard; and they listened to his story with the most evident marks of pleasure and astonishment. Upon his departure, they intreated the governor to renew his visit the ensuing winter; and when he represented to them the impossibility of his complying with their request, they urged him to send his brother in his place; as he must undoubtedly be equally good with himself. In this the Tschuktschers were perfectly right: this young man, who, as I have before mentioned, sailed with us to Japan, possesses all the admirable qualities which render his brother the object of universal love and esteem in the province over which he presides *.

* This journey to the Tschuktschers young Koscheleff did, in fact, execute the next winter. He acquainted me with this circumstance, after his return, in a letter dated Nischney-Kamtschatka, in June 1806, accompanied by a collection of Tschuktschan curiosities, and a dictionary of the language of that country. It is with grief I have to add that this amiable young man died in Kamtschatka in 1807.

The governor was so good as to give himself up to us entirely during the short time we were enabled to pass with him. On the day of his arrival he came off to us during the morning, and remained on board the ship until the afternoon of the next day: we then accompanied him on shore, to partake of a little ball which had been arranged. At one the next morning we returned on board the ship, and found that the wind had just veered round to the northward; as soon, therefore, as the boats could be hoisted in I weighed anchor, and at four in the morning of the 5th July we were already out of the bay.

CHAPTER V.

EXAMINATION OF THE COAST OF SACHALIN.

The Nadeshda sails from Awatscha Bay—We see the Kuriles—Sail through Nadeshda Channel—Storm in the Vicinity of Cape Patience—Comparison of the Longitude by the Chronometers and lunar Observations—Greatest Error which can be committed in these Observations—Instruments best calculated for them at Sea—We continue the Examination of Sachalin to the North of Cape Patience—The Tiara Mountain—Dangerous Shoal at some Distance from Land—Constant Fog—We reach the Northern Extremity of Sachalin—Description and Situation of Capes Elizabeth and Maria—We find a Colony of Tartars in a Bay, to which we give the Name of the North Bay—Description of this Bay—Examination of the North-west Coast of Sachalin—We perceive the opposite Coast of Tartary—Reach the Channel that divides Sachalin from Tartary—Are forced to return—Violent Currents near this Channel—Probable Vicinity of the Mouth of the Amur—We anchor on the North-west Point of Sachalin in a Bay, which we call Nadeshda Bay.

AS the situation of the Trap (that is to say, of the group of rocks which we discovered upon our last voyage among the Kuriles) could not then be accurately determined, owing to the extreme badness of the weather, I was anxious to ascertain it by this opportunity: I therefore held such a course as would lead us through the Kuriles in latitude 48° 50′, and kept as near as possible to the land, until we came into the parallel of these islands, in order to complete, by fresh observations, the chart which we had begun of the coast of Kamtschatka; and I be-

lieve that this chart will be found correct from cape Lopatka to Shipunskoy Noss, with the exception, perhaps, of a small part near cape Lopatka, which we saw but for a few minutes, owing to the fog.

After a fog of four days duration, which only cleared away for a few hours towards noon, we perceived upon the 9th July, at nine in the morning, the south peak on the island of Onnekotan, and that of the island Charamukatan; the first bearing N. W. 26°, the second N. W. 30°, distant about seventy miles. A thick fog bank stretched away from N. W. to S. W., and had I not been quite convinced that no land existed in this quarter of the compass, I should have infallibly been taken in by it, so much did it bear the appearance of land. At noon we were in latitude 48° 10′ N., and longitude 204° 34′ 30″ W., an observation by which it appeared that, in the last twenty-four hours, we had been carried by a current S. W. ½ S., at the rate of about a mile in the hour, and which frustrated my intention of looking after the group of rocks about twenty miles more to the north. A short time after noon we perceived peak Saryt-scheff bearing S. W. 85°: at three o'clock it bore due west, which made its latitude 48° 05′ 30″; while in our last voyage we had made it out to be 48° 06′ 30″. The mean of these two being 48° 06′ 00″. This latter may be assumed as its real latitude, and its longitude is 206° 47′ 30″ W. The islands of Charamukatan, Schiaskotan, Ikarma, and Tschirinkotan, bore at the same time N. W. 15°, N. W. 24°, N. W. 43°, and N. W. 53°. We could not now perceive the small island of Mussir, which we so unexpectedly fell in with on our last voyage, although it is but at

a very short distance from Raukoke, as it is both too small and too low to be visible at the distance at which we were from the chain of islands. At six in the evening came on a thick fog, which continued throughout the night and the whole of the next day; the wind at the same time was blowing fresh at E. S. E. and E., and rendered our situation very unpleasant, owing to the vicinity of these dangerous islands, among which the currents set with so much violence; and had they been only towards the north, they must inevitably have driven us very near the Trap. We frequently heard a noise like the rolling of waves, but were unable to determine whether it proceeded from breakers, or the meeting of two currents. Another night was passed under the same unpleasant circumstances: the haze being so thick that our horizon did not extend, at the most, ten fathoms. We stood off and on under very short sail, and continually sounding; a precaution, however, almost useless in the vicinity of these islands, as frequently at fifty fathoms from the land no soundings are to be met with a line of one hundred and fifty fathoms. At length, on the 11th July, at four in the morning, the fog cleared away, and we perceived the islands Ikarma, Tschirinkotan, Mussir, and Raukoke; but of the latter only the base and part of its summit: peak Sarytscheff being entirely concealed from the sight. The variation of the needle was 3° 11′ E. As the wind was fair, I determined upon sailing between Raukoke and the next island to the south of it, called Mataua, and I hoped by this opportunity, the weather, since the dispersion of the fog, being uncommonly clear, to be able to see more of the southern Kuriles. In fact, besides Mataua, we saw the islands of Raschaua, and a part of Ketoy, or the four-

teenth and fifteenth of the group; the latter of which is that called by the English and French geographers the isle of Maukan.

By eight o'clock we had passed the channel which divides Raukoke from Mataua, and now held our course to the west: these, which I have called the straits of Nadeshda, are among the widest in this chain of islands, being at least sixteen miles across, and perfectly free from all danger. We found the current, the direction of which in the channel is westerly, very strong; the waves breaking with a noise similar to that of a heavy surf; and a number of birds were seen swimming on the water.

Although in the first days after our departure from Kamtschatka our reckoning by the log varied one degree and a half from the true longitude, the error on the 11th July was only of six minutes. A navigator might, therefore, have determined the longitude of the Kuriles in the parallel in which we passed through them by the ship's reckoning, in general so little to be depended on, and almost without any error. A circumstance so fortunate can, however, but seldom occur; and if, even allowing for the force of the current, there should sometimes appear a wonderful coincidence between the longitude by the log, and the true longitude after a long voyage, thus affording an apparent triumph to the unskilful, this ought never to serve as an argument against the new method, the only proper one for ascertaining the longitude. Of this truth the naval officer is so well convinced, that he will not neglect it even on the shortest voyage.

The fog that had only dispersed for a few hours to allow us, as it were, a safe passage through the Kuriles, set in again about ten o'clock, and continued without intermission for twenty-four hours. The wind was fresh at east, then veered to S. W., and finally on the 13th July to N. W., when it dispelled the fog and brought clear weather. By observation at noon this day we were in 48° 21′ 28″ N. and 212° 32′ 43″ W.: our course was in a direct line for cape Patience, where our survey of Sachalin had ceased, and where we again intended to resume it. As we approached this promontory I kept the lead constantly going, but never with effect; and it was not until Monday the 15th July, at ten in the morning, when in latitude 48° 27′, and longitude 214° 53′, that we met with the ground in seventy-seven fathoms, of coarse sand, and three miles more to the north in seventy-two fathoms of a rocky nature; our distance, as well from cape Patience as from Robben island, being at this time twenty-three miles. The ship since the morning had been surrounded by a number of sharks and by swarms of birds; and we should undoubtedly have seen the land, but that the weather, although there was no fog, was so thick that our horizon did not extend above ten or twelve miles. I calculated upon being well to the south of cape Patience, and therefore steered north; but another thick fog that arose about three in the afternoon obliged us at five o'clock to lie by. We were then in latitude 48° 50′, and we had soundings in one hundred fathoms over a rocky bottom. The next morning the fog dispersed, and I resolved to avail myself of this moment of clear weather to make the land before the storm, which the falling of the barometer announced, should burst upon us. We were not, however, to escape without another trial of our patience: the sky became

overcast; the rain fell in torrents, and the wind was so high as to oblige us to reef our top-sails, and at noon increased to a storm. About five in the afternoon it was at its height: it split our top-sails, nor could we set any thing but our mizen and the storm-sails. This gale, which came on from the N. E., and gradually veered to N., and then to the N. W., drove us fifty miles from the coast. The barometer, which had fallen as low as twenty-eight inches nine lines, began to rise again about midnight: the storm abated; and the next day we had most beautiful weather. After a calm of some hours the wind veered to the south, and I then steered under all sail towards the land, which we saw at eight in the evening, about sun-set, although at first very indistinctly, being entirely enveloped in mist. It stretched from S. W. to W. S. W.: in which quarter, though not of itself much elevated, it appeared high and flat, being surrounded on all sides to the north and south by a very low land. Our soundings were sixty-five fathoms over a clayey bottom, and our distance about ten miles from the land: as we had not seen the extreme southern point of cape Patience, we beat up in that direction during the night, increasing our depth of water to one hundred fathoms, the ground still being of clay.

On the 18th July, at day-break, we saw the flat and high land, which we had distinguished the day before, bearing west, and cape Patience S. W. 17°. The wind was fresh from the south, and gave me hopes of being able even in the course of the day of examining this part of the coast, which I had approached for the purpose within about three miles. A thick fog and a high wind veering gradually round to the east, com-

pelled us, however, to quit the land again, and wait for a more favourable opportunity. The depth increased in a small proportion, and was, about six miles to the east of the above-mentioned flat height, sixty fathoms, and two miles more to the eastward seventy-five, over a rocky bottom. The fog continued, with intervals of thick rainy weather, until ten o'clock the next morning, the 19th July, when it became clearer, and we again approached the land with a gentle westerly wind; and at eleven o'clock perceived the coast of Sachalin for the second time. At noon we were by observation in 49° 00′ and 214° 42′; and at three in the afternoon we distinguished cape Patience bearing W. S. W. and Robben island S. W. ½ S.

The former, which, according to our observations, lies in latitude 48° 52′ north, and longitude 215° 13′ 45″ west, is a very low promontory, and is formed by a double hill, terminating abruptly. From this a flat tongue of land projects pretty far to the south; and on the north side of the cape the land is likewise very low, the flat hill before-mentioned being the first high land in that direction. By this hill, cape Patience, which, owing to its little elevation, is not easily perceived, may soon be recognized. The middle of Robben island, of which on our last voyage we had seen the western reef (the boundary, owing to the ice, of our observations at that time), lies in 48° 32′ 15″, and 215° 37′ 00″; and in the third chapter of this volume I have already laid down the north-east and south-west extreme of the reef that surrounds this island.

Having determined these two most important points of the south-east coast of Sachalin, I steered to the north along

the land, the direction of which from the flat hill was rather more westerly; there we found a deep opening, in which, even from the mast-head, no land could be descried; and I therefore altered my course to W. N. W. until we were convinced of its continuation in this direction. The bay, which lies in latitude 49° 05′, and is surrounded on all sides by a country very low, I have called Flat bay; and I think it very probable that this was the mouth of some large river. From its northern extreme the land gradually rises in the same direction, but is still of only a very moderate height, nor could we discover any where a point of sufficient elevation to assist us in making our survey.

The 20th July appeared to promise us a rich harvest: during the night the wind veered to S. S. W., and I therefore steered directly for the land, from which we were about ten miles distant: our soundings were seventy-five and eighty fathoms over a rocky bottom. At four in the morning I steered N. W. with most beautiful weather, which was what we had long wanted; and while the wind remained in this quarter we hoped to continue free from the fogs, which had generally set in with a south-east or east wind. The coast, the direction of which from the northern point of Flat bay as far as latitude 49° 30′, had been N. W. 19°, was of the same regular appearance as the preceding day, except that farther inland we could distinguish several chains of lofty mountains. The shore was very abrupt, and entirely white. Between two hills that projected considerably, and of which the southernmost appeared insulated, there was probably a good harbour, and, judging from the situation of the land, a small river. I would gladly have explored

this part of the coast; but a thick fog lay between the two headlands, and prevented our seeing the intermediate land, although we were at a very short distance from it; and as this was the first clear day we had had since our approach to this misty coast, and we had no reason to expect many like it, I could not prevail on myself to employ this fine, and to us precious, opportunity in exploring a part where our prospect of success was so very uncertain. In order, however, that future navigators might easily find this point again, I carefully observed its position, which is 49° 29′ N. and 215° 38′ W., seven miles S. S. W. of a cape which I have named Billinghausen, after my fifth lieutenant, and which lies in 49° 35′ N. and 215° 34′ 15″ W.

Before I proceed with the account of our examination of the east coast of Sachalin, which we were the first European navigators to explore, it may not, perhaps, be superfluous to say something of the astronomical determinations which we made the basis of our chart of this part of the coast. Our two chronometers, No. 128, by Arnold, and the one by Pennington (Arnold's pocket time-piece, No. 1856, having stopped during our last stay in St. Peter and St. Paul) had only varied three seconds of time from each other since our departure from Kamtschatka: we therefore looked with impatience for fair weather, in order to convince ourselves that the cause of this agreement of the two time-pieces was not, in their being equally wrong, as was the case in our run from the Washington to the Sandwich islands. On the 17th July we took six sets of distances of the moon from the sun: the mean of those, I observed, made the error of the watches 21′ 30″; that of the observations by Dr. Horner, 27′

45″ west. As so great an error appeared to us impossible, we imagined it might lie in the lunar tables for the day, and Dr. Horner calculated the lunar longitude in Bürg's tables, and found their error to be fifty-seven seconds, making a difference of 28′ 45″ in the geographical longitude. The error of the time-pieces by my observation was thus reduced to = 7′ 15″, and by that of Dr. Horner to 1′ 00″ too much east. On the 19th July we again took ten sets of observations under the most favourable circumstances, each of them of five or six lunar distances: but we once more found a difference of twenty minutes in the watches, which proved that the error in the lunar tables was again very considerable; and upon Dr. Horner's calculating them from Bürg's tables, he found the error of the moon's longitude in the Connoissance des Tems forty seconds, making an error of nineteen minutes in the longitude. The error of the chronometer was thus reduced, according to his observation, to fifteen seconds on the average, and according to mine to 3′ 12″ too much east. On the 20th July we each of us again measured five sets of distances of the moon, and upon this occasion I found the error of the watches 9′ 49″, and Dr. Horner 15′ 30″ too easterly. The observation of the 21st July made the error only a few seconds; but as the observations of the 19th July were the best, and likewise in greater number, and the longitude of the moon was reckoned on that day by Bürg's tables, I have adopted one minute and a half on an average as the real error of the time-pieces, in the mean of Dr. Horner's and my observations, an error so trifling, that it can hardly be considered as of any consequence.

The observations made during three days always proved the

error of the time-pieces to be a few minutes east, but it might have been just as well to the west, as such observations at sea are generally liable to great inaccuracy: at all events, I think, so long as the difference between the chronometer and the lunar distance does not exceed a quarter of a degree (provided the former be well regulated, and a constant rate of going can be deduced from it), that the longitude by the chronometer generally deserves the preference, unless by any great deviation from its usual rate it should become at all suspicious. A heaviness of the atmosphere, the uneasy motion of the ship, the shaking of the instrument by any gust of wind, an uncomfortable as well as an insecure position of the body, added to the want of common sextants, frequently occasion an error of twenty seconds in the distances measured; and if, besides these, any mistake should occur in casting up, or there should be any in that of the moon's longitude, which, as we have experienced, is sometimes the case in the best ephemerides, even to a minute on an average; an error of three quarters of a degree may easily be made in observations by no means bad: the possibility of which is not only proved by our own journals, but by those of our celebrated forerunners Cook and La Perouse. On the other hand, lunar observations, if made at various periods, and under different circumstances, they still give the same result, deserve a decided preference over the chronometer, particularly if made with the best instruments, and that the moon's longitude can at the same time be calculated by Bürg's tables. In such cases the supposed uncertainty of 15′ might, perhaps, be reduced to the half, or even to 5′; and it is then justifiable, even in the open sea, to adopt a new rate of going for a chronometer, the deviation of which has been considerable.

Among the instruments with which such observations are made at sea I consider good sextants as the best and most convenient: they are preferable to the complete circle, which, however, have this great advantage, that in them mistakes of division, occasioned by the repeated duplication, generally vanish, and the determination of the error of collimation falls entirely to the ground. Dr. Horner, who, as well as myself, was at first very much prepossessed in favour of this latter instrument, and with whom I had frequent conversations upon its merits and disadvantages, found a good sextant to be much more useful at sea, and we neither of us latterly made any use of the complete circle. On shore, where the accuracy must be carried to half seconds, the circle may be preferable; but even then it must be of a more convenient construction than the one I purchased of Troughton, in 1803, with the flying nonius.

We sailed to the northward, with the most delightful weather, along the coast, keeping at the distance of from six to ten miles from it. The depth was between seventy and eighty fathoms over a clayey ground. Sachalin now afforded much finer prospects than any we had witnessed during a couple of months. In our last voyage along the coast we had seen nothing either in Patience bay or in Jesso but mountains covered with snow, and the prospect of the burnt up Kuriles, which we had just left, was not much more agreeable. Even the unvaried green with which the mountains along the shore were covered to a moderate height, drew from us the most lively testimony of the beauty of Sachalin. The trees, as far as we were able to observe, were none of them lofty, and by the sea-side there were only some shrubs. We perceived in various places small inlets,

into which rivulets appeared to empty themselves, affording a convenient spot for settlements; but nowhere was the smallest trace of any human habitation visible. The interior of the country was extremely uniform; and it was only here and there we saw any spot which assisted our trigonometrical labours. Among these was a tolerably high flat hill, remarkable from having three points on its summit, on which account we called it mount Tiara. It is situated in 50° 03′ N., and 216° 23′ W., and the coast from cape Billingshausen to the parallel of the hill takes the direction of N. W. 30°.

On the 20th July at noon we were in 49° 57′ N. and 215° 44′ W. A headland projecting to the northward in 50° 11′ 30″ N. and 215° 57′ 00″ W., bore N. W. 30°: our distance from shore was about seven miles, and we were in seventy fathoms water.

The wind that in the morning was so fair now veered to the N. W. blowing fresh, and in pretty heavy squalls. This obliged us to tack, and we sometimes approached within two and a half and three miles of the coast, when our soundings were forty fathoms. A heavy sea from the north, which set in about six o'clock with only a moderate wind, appeared to forebode a storm from that quarter of the compass; and the barometer, which had hitherto been very low, fell from 29 inches 35, to 29 inches 15: at length, at eight o'clock, it blew violently from the north, but about eleven the wind again became more moderate. This short gale was succeeded by a thick fog, although the wind still hung from the north. At day-break I again steered towards the land, which, as the wind still continued in the same quarter, we could only approach very slowly. On the 21st July

at noon cape Rimnik bore N. W. 46°, and mount Tiara N. W. 75°: to the westward lay the mouth of a small river or bay, and we were about nine miles from the shore; our latitude by observation being 49° 56′ 35″, and the longitude 215° 42′. A constant and pretty strong north-eastern current, which we had perceived during these latter days, led me to think, though incorrectly, that the northern part of Sachalin was divided about the fifty-first or fifty-second degree by a channel, the direction of which was N. W. or S. E.

After standing in within five or six miles of cape Rimnik I lay-to: at day-break it bore N. W. by W., and instead of finding behind this cape either a deep bay, or any remarkable change in the direction of the coast, we perceived it to continue from this point in the same line as before, and so flat and low that it could only be seen at a short distance. This flat district stretches deep inland, and is the more remarkable, as the country both to the north and south of it is much more mountainous. Here we distinguished the finest valleys in the most luxurious verdure, and the hills surrounding them entirely covered with wood; yet fruitful as these parts appeared to us, we could not any where perceive the slightest traces of cultivation. Near the shore we saw whales, sharks, and seals in various directions, and the ship was surrounded by swarms of birds. At noon cape Rimnik bore W. N. W.; a high flat hill N. W. 48°; and in this situation we observed in 50° 09′ 04″ N., and 215° 52′ 40″ W. At one in the afternoon we were not more than two miles from the shore, and our soundings were twenty-two fathoms. Shortly after putting the ship about it fell calm, and continued so until three the next morning, when we had a gentle breeze

from S. S. E. with which I steered along the coast N. N. W., keeping about four or five miles from the land, so that not a point could escape us. On the shore there was every where a very heavy surf, and we could distinctly hear the breakers on board the ship, and distinguish, being so near the beach, that there was nowhere any inlet. At noon we observed in 50° 22′ 24″ N., and 215° 53′ W., a high, very even, and rather projecting headland bore N. W. 18° 30′. We were three miles and a half from the shore in twenty-seven fathoms over a fine bottom of clay. The cape to the northward of us I have named Ratmanoff, after one of the lieutenants of my ship: it lies in 50° 48′ 00″ N., and 216° 06′ 45″ W.

We proceeded on our course with a gentle easterly wind to the northward: fresh chains of mountains appeared as we sailed along, but none of them were conspicuous either from their height or form. The coast hereabouts was invariably craggy, and of a yellow colour. At five in the afternoon we were at the distance of eight miles from the land, and our soundings were twenty-six fathoms over a rocky bottom. This inconsiderable depth, and the nature of the ground, led me to suspect that a reef of rocks ran out into the sea from the cape which confined our view to the northward, similar to that at cape Patience; and this suspicion, joined to the haziness of the weather and the easterly wind, induced me, towards night, to stand out to sea. At six in the evening the weather cleared up, and we saw cape Ratmanoff distant about fourteen miles bearing N. W. 33°, and at the same time we distinguished to the westward a small bay, where, from the general shape of the land, there probably was a good harbour. In the middle of the entrance, which was about

a mile wide, there is a large rock that renders this bay very remarkable; it is in 50° 36′ 30″ N., and 216° 08′ 00″ W. At seven o'clock we saw the whole form of cape Ratmanoff, terminating in a flat neck of land, which stretched a considerable distance into the sea: we could now clearly distinguish the continuance of the coast to the N. W.; but much more to the west than the direction of it from cape Rimnik to cape Ratmanoff, which was N. W. 8°, while from the latter it was N. W. 30°. The most distant land visible about eight o'clock bore N. W. 34°, cape Ratmanoff at that time bearing N. W. 43°: our nearest land was from nine to ten miles, and the depth fifty-seven fathoms.

As the current for several days past had been southerly, and in the average about a mile an hour, we continued our course during the night under easy sail to the north. At one the next morning I conceived myself opposite cape Ratmanoff, and therefore lay by, and at daybreak of the 24th July steered directly west, although, from the haziness of the weather, the land was not to be perceived. At seven we were enveloped in a thick fog; and as the depth had decreased to thirty-five fathoms, I lay by; the wind at the time blowing fresh from the S. E. At ten o'clock the fog began to disperse, but did not yet quit the coast. I steered due west, under very easy sail, in the hopes of again shortly seeing the land, our distance from which, judging by the depth of water, which was forty-eight fathoms, must have been about six or seven miles; and unwilling to lose a single moment of the clear weather, which I now expected incessantly. At eleven we distinguished the sandy shores of the coast, and shortly afterwards could plainly perceive the surf from the deck; the coast itself, however, as well as the

lofty mountains lying inland, were still concealed under the thick covering which so often put our patience to the greatest proof. We were scarcely three miles from the shore, and our depth of water was twenty-five fathoms over a bottom of sand and muscles, and I put about with the ship's head to the eastward, hoping the midday sun would dissolve the spell. Nothing was to be seen except the two promontories, cape Ratmanoff and the other we had perceived the day before, and the tops of the mountains lying far inland between these two capes. We had an observation in 51° 5′ 57″ N., and 216° 06′ 30″ W.: cape Ratmanoff at the time bearing due south, and the other S. W. 55°. This latter cape, which lies in latitude 51° 00′ 30″, and longitude 216° 17′ 00″, I have called Delisle de la Croyère, after the astronomer of that name, who accompanied Captain Tschirikoff to America in 1741, and died upon the voyage. The fog still hung upon the land; but about three in the afternoon it began to rise a little, and I immediately steered for the shore, till within about three miles of it. We could now, indeed, perceive the two capes Ratmanoff and Delisle, which were connected by a flat, sandy beach, and the mountains in the back ground between them; but were unable to make out distinctly the form of the coast, and we were again obliged to shorten sail and lie by, although we still flattered ourselves with the feeble hope of obtaining at sunset a clear prospect of the coast. Instead of this the fog grew thicker, the wind increased, and a heavy swell from the eastward announced a storm from that quarter of the compass: nor did it long delay its appearance. In this vicinity to the land, such a storm setting in directly upon the coast might have been attended with imminent danger; and I therefore ordered the topsails to be double reefed, and steered under them and our courses as near as possible E. by N. and E. N. E.

The stormy, and at the same time foggy, weather continued from the 24th to the 29th: during which we very seldom saw the land, and then only for a few minutes. The lead was our only guide, and very little was the confidence with which this could inspire us, upon a coast entirely unknown to all on board; but we should have been spared much uneasiness had we known sooner of its being entirely clear from shoals, rocks, or small islands, such as usually exist at a short distance from land. On the 28th the weather again allowed us to approach the shore, from which we had been driven the day before about thirty-five miles by a violent N. W. wind, and shortly before sunset we saw cape Delisle, with the high mountains in its vicinity. This forms the boundary of the mountainous part of Sachalin; for to the north of this cape, with the exception of two hills of moderate size which lie at a short distance in the same direction, there is neither high land nor single mountain to be seen, but the whole coast is flat and covered with wood, and the shore every where sandy. La Perouse remarked also, while surveying the west coast of Sachalin, that in the parallel of fifty-one degrees there was nothing but sandy downs; and as Sachalin hereabouts is not more than fifty miles from east to west, it is evident that between the fifty-first and fifty-second degree it must consist entirely of sand downs.

On the 29th of July the weather again became favourable: after a calm, which lasted some hours, we had a gentle breeze at S.S.W., and sailed along at a short distance from the land. At noon we took an observation in 51° 14′ 44″ N., and 216° 07′ W.; at three o'clock, we had got within about seven miles of the land, and found, upon sounding, a depth of thirty fathoms over a bottom

of clay. We pursued our run, the land opening more and more to the northward, parallel with the coast, at first N. N. W. then N. by W., N. and finally N. by E. as near as possible to the land, from which we frequently were not more than three miles distant. As I could not shake off the idea that the northern Sachalin, the extremity of which was supposed to be in the fifty-fourth degree, and the southern part of it, along which we were now sailing, were not two different islands, I constantly cherished the hope, which, however, was soon disappointed, that every point of land I saw would prove the last of the southern island.

At four in the afternoon we distinguished a high land to the N. W. rising like an island in the midst of this plain of sand: further inland the ground was covered with impenetrable woods; and I thought it not improbable that the high land to the N. W. was the same as that which La Perouse calls cape Boutin. At eight o'clock in the evening we perceived a point which appeared to be the boundary of the sand coast: it bore N. W. 40°, and was rendered remarkable by a round hill. This point, which lies in 51° 53′ 00″ N., and 216° 46′ 30″ W., I have called the Downs point: it does not form the boundary of the sand coast; for this continues to the northward perfectly of the same cast as that to the southward, only that behind this point there is a bay of considerable depth. At daybreak of the 30th July the Downs point bore S. W. by S. distant about twenty miles, and being desirous of examining the depth behind it, in the hope of perhaps finding here a separation of the two lands, I put the ship about to the S. W. The wind, however, soon veering to that quarter compelled me to steer W. N. W. In the mean time we were so much nearer that we could distinguish the flat land within the

bay, and about eight o'clock we saw, bearing N. W., a considerable district of an entirely similar appearance. Our distance from the nearest land was about ten miles, and our soundings seventeen fathoms, and I immediately steered towards it: in about an hour we could plainly perceive the inflection of the land from the mast head, and shortly after from the deck.

At noon we had to the N. W. a chain of five hills of a billowy form, bearing the appearance of islands in this extended plain. The whole coast here, like that to the southward, is scarcely raised above the water's edge; it is entirely of sand, and a little way inland is covered with a seemingly impenetrable thicket of low shrubs. N. W. by N. there was also a sand-hill, remarkable as being rather larger and of a flat form: at noon we had an observation in 52° 17′ 29″ N. and 216° 41′ W.; we were about five miles and a half from land in fifteen fathoms water. The variation of the needle, which since we came on this coast never exceeded a degree, sometimes to the east, then again to the west, was on a mean of the observations made in the morning and evening 0° 57′ W.

The depth since noon had been gradually decreasing, which obliged us to stand rather off shore, from whence about five o'clock in the afternoon we were nine miles, and at this distance we had not more than ten fathoms water. The lead was hove without intermission on both sides of the ship, and on a sudden the water decreased from ten to eight fathoms, shortly after to five, and almost immediately the man in the chains called out four and a half. I had the ship instantly put about to E. S. E.; and we continued for some minutes still in four and a half

fathoms, but soon after the depth again increased. This shoal, the only one we met with along this flat coast, might have proved very dangerous had less attention been paid in sounding, the depth having suddenly fallen from eight to five fathoms. It lies in 52° 30′ N., and 216° 31′ 00″ W., and stretches, probably, for some miles north and south at a distance of ten miles from the shore. Five sets of lunar distances which we calculated on this day shortly before we fell in with it, under the most favourable circumstances, made our longitude reduced to noon 216° 39′ 10″ W.; nearly the same as by the timepieces. The coast, the direction of which from Downs point is due north, projected to the eastward nearly in the parallel of the shoal we discovered; after that its direction is invariably north, and it is equally flat with that already described, and, like it, is covered with low brushwood. The shore is also sandy, and near it are a few sand-hills. This projection, which is so remarkable on account of its vicinity to the dangerous shoal, I have called Shoal point: it lies in 52° 32′ 30″ N., and 216° 45′ 30″ W., and may be easily known by a hill of tolerable height, which on this flat coast almost merits the name of a mountain, and forms a very remarkable object.

This sandy coast, which, from its dangerous uniformity, was become disgusting to us, continued to follow a northerly direction, and I now gave up all hopes of finding the division of Sachalin which I had so confidently looked for. At sunset the northernmost of two considerable hills bore nearly west of us: their latitude I conceived to be 52° 42′ 30″, but further to the northward there was no remarkable object whatever visible; the coast, as far as the eye could stretch, appearing to consist of a flat sand. At

nine I lay by: during the 29th and 30th July we had examined most carefully about eighty miles in extent of this inhospitable coast, and it was only in such extraordinary fine weather that it was possible to approach so near to it, as frequently, at a distance of only six or seven miles, it was entirely imperceptible. After a two days continuance of clear weather we naturally began to look forward to a change, and our fears were soon verified: it had been calm, accompanied by a thick fog that entirely concealed the land from us, and lasted all the day of the 31st July, when a high easterly wind arose in the night preceding the 1st August. Our soundings were twenty-six fathoms, and we could not have been at any great distance from the land; we were therefore obliged to carry all the sail the masts could bear, in order to get clear of this dangerous coast. By noon, the wind still increasing in violence, we had succeeded in deepening our water to fifty fathoms, and by the evening to eighty. During the night the wind fell, and in the morning of the 2d August veered round to the northward. With this I steered again due west towards the coast, in sight of which we came by two in the afternoon. It was here only of a moderate height, but much more so indeed than that we had seen to the southward. To the northward, however, as far as the eye could reach, nothing was visible but a flat sandy plain, with a small conical hill, which bounded our view to the north, and at two o'clock, just as we got sight of the land, bore N. W. 60°: we were nine miles from shore, in thirty-eight fathoms water. At noon we had an observation in 53° 28′ 04″ N., and 216° 18′ W., and were consequently forty-five miles more to the northward than the hill we last saw on the 30th July in 52° 42′ 30″ N. To this we were obliged to return in order to connect our angles, and on this account I have

named it Connecting hill. But before I held my course thither I was forced to stand to the westward towards a pretty prominent point, between which and the high land behind it appeared rather an extensive bay. As I was very anxious to find a good harbour at the northern extremity of Sachalin, where I might anchor, I did not choose to remain in doubt with regard to the quality of this bay; and about four o'clock we found that a long flat sand bank, over which the surf broke with violence, entirely blocked up its supposed entrance. I now, therefore, steered to the S. W.: the land trended to S. by W., and was altogether flat and low: we saw, indeed, several projecting points, having between them deep inflections, which at some distance gave to them the appearance of bays, but our vicinity to the land, from which we were frequently not more than three miles, convinced us they were not so. The surf all along the coast was very heavy, and in several places there were narrow necks of land projecting into the sea, near to which the depth immediately decreased, and compelled us to alter our course gradually from S. W. to S. E. by S., and to stand off to about six or seven miles from the shore. We advanced so quickly with the assistance of a moderate north wind, and a southerly current, that I hoped before sunset to see the southernmost hills, or the one which we had named Connecting hill. At five in the afternoon we perceived, a long way inland, several considerably high lands; about seven, others in a still more southerly direction, and at the same time a point of land from which the coast takes a westerly direction. This point, which lies in 52° 57′ 30″ N., and 216° 42′ 30″ W., I have called Würst, after my excellent friend the counsellor of state of that name. At eight we distinctly saw the Connecting hill, which had become very interesting to us, as I already feared

that some parts of the coast must have been left incomplete in our chart; but we now had a complete draft of the whole. We were, indeed, still nineteen miles distant from the parallel of Connecting-hill, but by dividing these, and reckoning that on the evening of the 30th July, when we had this hill well to the westward, we could plainly see nine and a half to the northward *, and that on the 2d August we could see the same distance to the south, it is not probable that any thing of importance can have escaped us.

Throughout the night and the whole of the next day, the 3d August, we had a perfect calm, with a thick fog. At noon it cleared up for a few moments, which enabled us to take the sun's altitude: our observations gave 52° 56′ 05″ N., and 215° 45′ W. with a current setting twenty-one miles direct to the southward.

Towards night a gentle breeze sprang up at south: as we had already examined the coast as far as latitude 53° 30′ we were at liberty to run back to the northward, notwithstanding the fog, which continued without intermission; and I therefore steered N. N. W. and N. W. by N. under easy sail. It was not until the 4th August, shortly before noon, that the weather cleared up, and enabled us to take altitudes both for our latitude and longitude. Our observations, 53° 44′ 25″ N., and 216° 12′ W., shewed a current of ten miles to the N. E. by N., by which we had run farther than I expected from the point we had last seen to the

* This distance may even be calculated at two miles less, as we continued our course half an hour to the northward after the hill was brought to bear west of us.

northward, and I steered S. W. in order to get back to it. At two o'clock we saw the land, and at four we were in thirty-seven fathoms water, and within seven miles of the coast. We recognized all the different objects which we had seen on the 2d August: the small conical hill, at that time our northernmost boundary, now bore W. S. W., and the projecting point of land, behind which I had expected to find a bay, S. W. To the north of the conical hill the coast still retained the same appearance. It consists of a flattish land, gradually increasing in height, the shores being perfectly flat and sandy. There appeared several points of land, which were all connected one with the other, although at a short distance there seemed to have been inlets of various extent. It was only on one spot behind a very prominent point of land, where the coast retired to a considerable distance, that no connection of the land was perceptible. This seemed to be the mouth of a river: the point which renders this spot remarkable lies in 53° 40′, and 216° 53′, and is called after my friend General Klokatschef.

At four o'clock I altered my course to N. W. and N. W. by N., and we still kept opening upon more low land. At five we were compelled, by a very thick fog, to lie-by, and soon after to stand off from the coast. The wind blew fresh at S. S. W. with dark hazy weather; and this was followed by a brisk E. S. E. wind, with a dense fog, that continued four days without intermission. During this time we stood off and on, but never to any considerable distance from the coast; the depth of seventy-two fathoms being our utmost limit, and this might be between eighteen and twenty miles from land. On the 8th August, at four o'clock in the morning, the fog began to disperse, and at

five we saw the land stretching S. W. and N. W.: we found ourselves removed to quite a new region. Instead of the flat sandy tract which we had been coasting for upwards of a fortnight we now saw a high mountainous land, with very short and narrow spaces between the hills: the shore was every where steep, and in several places consisted of rocks of a chalk-like appearance. To the N. W. there was a large promontory, from which the coast took a more westerly direction. I called it cape Löwenstern, after my third lieutenant. It lies in 54° 3′ 15″ N., and 216° 47′ 30″ W., and in front of it there is a rock of considerable size.

As there was still an hiatus between this part of the coast and that which we had explored previous to the fog, we were forced to return to the southward to find the last point we had seen, from which we were not, however, more than twenty miles distant. The wind was fresh from the S. E. with thick foggy weather; and this latter circumstance compelled us to run back eighteen miles to the S. W. before we could recognize the land seen on the 3d August. At eight o'clock we saw it, and I now again steered to the north, at a distance of barely three miles from the coast, in twenty-five fathoms. From cape Löwenstern we could now perceive four other promontories, each of which I expected to find the north cape of Sachalin: and to the south of it there was close to the shore a beautiful valley almost entirely surrounded by mountains; near to which, it is probable, that some rivulet empties itself into the sea. In this valley we saw two habitations; the first we had perceived on the east coast of Sachalin; and not far from thence an inlet between two projecting points of land: but these also were connected by a

low neck of land, and we lost all hopes of finding any harbour here. Northward of cape Löwenstern, as far as the extreme point of this island, the appearance of the land became more and more dreary: no traces of vegetation were apparent: the whole coast, which, in the language of English sailors, would be called an iron-bound coast, consists entirely of one mass of granite rock, of a black colour, with here and there a white spot; and the depth, at the distance of about three miles from land, was thirty fathoms over a rocky bottom. At this distance we sailed parallel with the shore, the direction of which, from cape Löwenstern to the north cape of Sachalin, was N. W. 35°: at length we saw the long wished for cape at ten o'clock in the morning, about twenty-five miles off; but on this day we were unable to ascertain its latitude. An hour before noon the sky became overcast; and as it began to rain violently we entirely lost sight of the land, although we were not more than three miles distant from it. We now observed a remarkable change in the colour of the water, which assumed a dirty yellow appearance; and Dr. Horner found it lighter by eight grains than what he had weighed the day before: a circumstance which could only have been occasioned by the water of the Amur, the mouth of which was about one degree and a half more to the south. At one in the afternoon the weather cleared up, and we perceived the north cape of Sachalin bearing due west; and cape Löwenstern at the same time S. E. 5°: the depth was fifty-five fathoms over a rocky bottom. With a fresh breeze at S. E., and in very thick foggy weather, we weathered the northern point of Sachalin, which at half past three in the afternoon bore south of us: and we now distinguished high land stretching S. W. as far as the eye could reach. Owing to the thickness of the weather we could

not discover the northern extremity, which, with the north point of Sachalin, seemed to form a considerable bay: the land to the S. W. was also high, but not so mountainous as the rest. As it now came on to blow a gale from E. S. E. I lay-by under reefed top-sails; but observing that the current drove us towards the shore, and that our depth of water was gradually diminishing, I conceived it advisable to stand off from the land throughout the night.

On the 9th August at day-break, the weather being thick, with a moderate east wind, I set all sail, steering S. W., in which direction I expected to fall in with the north cape of Sachalin. But it was not until nine that we discovered the land, which proved to be that part of the coast we had seen the day before enveloped in mist, lying to the S. W. of the north point of Sachalin. At ten o'clock we perceived this point to the S. E. 52°; at the same time we had the north-west cape of Sachalin in S. W. 5°: we were at an equal distance, about eighteen miles from both of them, and our depth of water was thirty-five fathoms over a sandy bottom.

These two promontories, which form the north coast of Sachalin, I have named Elizabeth and Maria: two names that must be dear to every Russian; and I would gladly have adorned more agreeable spots with them. Cape Elizabeth in 54° 24′ 30″ N., and 217° 13′ 30″ W., is a high mass of rock, and forms the extremity of an uninterrupted chain of mountains. It is very remarkable from a number of pointed hills, or rather naked rocks, upon which neither tree nor verdure of any kind is perceptible: it descends gradually towards the sea, and at the brink of the

precipice is a pinnacle, or small peak, at the bottom of which is a rock of considerable height, surrounded by several smaller ones. Viewed from the west, this cape bears an extraordinary resemblance to the south coast of Kamtschatka, or cape Lopatka, except that the former is loftier. On the west side of the cape a point projects, and between these there is a small bay, or rather, an open bight. Cape Maria, which lies in 54° 17′ 30″ N. and 217° 42′ 15″ W., is lower than cape Elizabeth: it consists of a chain of hills all of nearly the same elevation, and, consequently, resembling a level plain; this cape slopes very gently down to the sea, and at length terminates in a steep precipice, from whence a dangerous reef runs to the N. E. A great surf in this direction proves that the rocks stretch out for a considerable distance into the sea, and as the currents in the vicinity of this cape are very violent, and can only be overcome by a fresh wind, it is dangerous to approach too near to it. A sudden shift of wind to the N. W. might easily render the situation of a ship precarious, and particularly as the reef, in all probability, stretches out much farther than we had any opportunity of observing.

Between capes Elizabeth and Maria there is a large bay of considerable depth, in which the land, for the most part, was of a moderate height, and in some places so low, that we looked with such a degree of certainty to the prospect of finding a good harbour here that I steered towards it in search of one. However, as we approached we found our expectations deceived: it was every where connected by low land; but in the vicinity of the south-west shore, at the foot of a mountain, there was a valley in a most delightful situation, where we distin-

guished a large village, consisting of twenty-seven houses. Thirty-five persons were seated in a row along the shore; and these were the first inhabitants of Sachalin whom we had seen since quitting Patience bay. I sent Lieutenant Löwenstern on shore, to acquire some information concerning them and their country; but as I imagined that some Tartars from the opposite coast might have fixed their residence here, I ordered him in this case not to go to any distance from the beach, and to return to his boat upon the least suspicious appearance. He was accompanied by Drs. Horner and Tilesius, and set out about two o'clock; the ship in the mean while was hove-to about one mile and a half from shore. The depth had gradually decreased to seven fathoms: till within eleven, the bottom had been invariably rocky, but after that it was of a fine sand. After rowing about half an hour the boat landed opposite the village; and our vicinity to the shore enabled us distinctly to perceive all the motions of either party: the reception our officers experienced appeared to us, if not hostile, at any rate by no means friendly; and at four the boat returned with the following account:— Three persons, who, from the superiority of their clothing over that of the rest, must have been chiefs, advanced to meet them as the boat approached the shore: each of them had a fox's brush in his hand, which they whisked about, crying out, at the same time, so loud, that it was distinctly heard on board the ship. Our party, however, stepped on shore, and were received with a very hearty embrace; but their advance seemed, in some measure, to be resisted: at the same moment all the inhabitants of the village came towards them, and as each was armed with a dagger, and the chiefs with sabres, this reception appeared to them rather too suspicious. M. Von Löwenstern, therefore, re-

embarked, in obedience to my injunctions: he, however, landed again in another part of the bay, rather to the north of his first landing-place, and examined a lake not far behind a height, and which appeared to extend a considerable way inland. M. Von Löwenstern only saw the inhabitants of this bay for a few minutes, but he, nevertheless, justly concluded from their appearance that they belonged to a very different species of men from the Ainos who inhabit the southern part of Sachalin. Most of them, like the latter, were clad in parkys: the three chiefs wore coloured silk dresses, and many of the others had an upper dress of silk of various colours. It appeared to us certain that these people were Tartars; and of this we were afterwards convinced, upon our nearer acquaintance with them, which I shall presently have to mention.

Should it ever be the intention of Russia to plant a colony in the north of Sachalin, this bay is the only spot calculated for such an undertaking: it lies very open, yet it appears to me to possess a decided superiority over those in Teneriffe and Madeira, where, at certain seasons of the year, very considerable fleets anchor in perfect safety. The depth, which, as I have already mentioned, was at one mile and a half from shore, nine fathoms over a bottom of fine sand, decreases gradually, and at half a cable's length from the shore there is a depth of three fathoms over an excellent anchoring ground. In the summer, when the north winds are rare, this bay must therefore be perfectly safe; and that they are very much so in that season I conclude, from not having perceived the least surf throughout the bay, which is entirely open to the N. E. and N. W.; and our boat landed with a facility only experienced in such as are closed in. During

the whole time, moreover, that we were examining the coast of Sachalin, almost until our return, we never witnessed a continued north wind, except on the 2d August: the reigning winds being from the S. E. and S. W.; and in case of an approaching storm from the N. E. or N. it would not be difficult, as the bay is so very roomy, to work out of it. The valley where the village was situated is particularly calculated for a settlement:—the neighbourhood is remarkably delightful; every where we perceived the finest grass, of a luxuriant growth, and the surrounding heights and mountains were covered with magnificent forests of fir-trees. A large lake, into which several small rivulets empty themselves, is close at hand; nor can there be the least difficulty in procuring an ample supply of wood and water. The distance from the small bay on the opposite coast of Sachalin is not more than five miles by land; and there was another small village nearer to cape Maria, inhabited also, in all probability, by Tartars, who must be considered merely as strangers who have driven away the natives, the Ainos, and, perhaps, entirely extirpated them. Between the two villages we distinguished several rein-deer feeding near the shore, and there can be no doubt but that husbandry might be pursued here with considerable effect.

This, which I shall call the north bay, is formed by cape Elizabeth to the east, and cape Maria to the west, lying eighteen miles N. E., and S. W. 65°, from each other. The valley where the larger colony of Tartars is established is quite in the bottom of the bay, in latitude 54° 15′ 45″ N., and longitude 217° 23′ 00″ W., about nine miles to the southward of cape Elizabeth. At some distance, and before the houses appear in sight, this

spot is remarkable from having altogether the appearance of two islands, between which any one would expect to find a secure anchorage. From the observations we made in the vicinity of cape Maria, it is high water here at two o'clock at new and full moon, and the tide, as I imagine, does not rise to any considerable height.

I should infallibly have come to an anchor in this bay, in order to examine into it nearer, (which it appeared so much to deserve) and the rather as Lieutenant Löwenstern had been obliged to shorten his visit; but that, after a considerable length of time, we had at last a clear day, and as I hoped that the fine weather might continue for some time, I was desirous of employing this valuable opportunity in the examination of the north-west part of Sachalin; of so much the more importance as I still could not persuade myself that we should not find there a secure harbour, where I proposed to stay for some time.

After Lieutenant Löwenstern's return on board, and that the boat was hoisted in, I made all sail to weather cape Maria. As we cleared the bay the depth of water increased from eight to sixteen fathoms, and upon our nearer approach to the cape, and when we were from six to seven miles from shore, it suddenly fell to forty-eight. At eight in the evening the helm became unserviceable, although the wind was pretty fresh and fair, owing to a strong current, the direction of which we found to be W. S. W.; but at two o'clock in the morning it altered to E. S. E., the wind still continuing very fresh. The ship remained altogether unmanageable, and we were left entirely to

the current; and in order to ascertain its rate I lowered a boat which was anchored alongside the ship, when we found it to be two miles and a half in the hour; a calculation which, by another experiment, we proved to be perfectly correct; although during the night its force had been more considerable. About noon I brought the ship up with a kedge anchor in thirty-five fathoms, over a bottom of fine sand; cape Elizabeth at the time bearing by compass S. E. 79°, cape Maria S. E. 31°, and a new point on the N. W. side, which I named cape Horner, S. E. 28°. In this situation we observed in 54° 30′ 02″ N., and our corrected longitude by the time-pieces was = 217° 55′ W. At two o'clock we had a fresh breeze at N. E., and I instantly got under weigh, and steered for cape Maria, which, at eight in the evening, bore W. ½ N. In the night the wind shifted to S. E., and continued in this direction the whole of the next day, blowing very fresh, and with incessant rain, nor did we see the sun for a single instant. This unfavourable weather compelled us to beat about in the canal that separates Sachalin from the coast of Tartary, which, however, we were unable to see: the depth of water was from twenty-two to twenty-seven fathoms, and the current constantly very rapid. During the night the wind fell, and the ship instantly refused her helm, and we were left entirely to the current until ten o'clock in the morning of the 12th August, when, although we had a fresh breeze from the north-west, we found it impossible to stem the current, and were consequently obliged to steer S. E. by S. instead of E. N. E., nor could we succeed in laying the latter course until five in the afternoon. From the direction and form of the land I judged there was a secure harbour behind cape Horner; and in order to ascertain this I stood in to about one mile and a half from

the shore; but though we found it sheltered in some measure, it was not by any means so deep as I had at first imagined. In this bay I anchored on the 14th August, as we could find no other harbour.

At noon our observations were 54° 04′ 10″ N., and 217° 51′ 30″ W., thirty-two miles more to the north than by the log. Farther to the eastward of us was a high peak, situated entirely in the centre of the country; and to the southward of this another pretty lofty mountain, divided at the summit. Cape Maria, at the same time, bore N. E. 28°, and the southernmost land we could see E. S. E. The peak, which I have called after Dr. Espenberg, the physician of our ship, lies in 54° 04′ 10″ N., and 217° 10′ 00″ W,

Dr. Horner, who, during our navigation of the canal, had made several experiments to ascertain the specific gravity of the water, found it now but seventy-eight grains in weight; twelve lighter than the sea water in medium latitudes, and only fourteen grains heavier than river water, which convinced us of our vicinity to the mouth of the Amur. We now sailed parallel with the coast, never more than a mile and a half or two miles from it, that not even the most trifling circumstance might escape us: our depth of water was from fourteen to sixteen fathoms.

The north-west coast of Sachalin is infinitely preferable to the south-west: between the mountains, which are entirely overgrown, even to their summits, with the thickest forests, there are valleys that, judging from the luxuriant growth of the grass

with which they are covered, must be very capable of cultivation. The shores were broken, and almost every where of a yellow colour, which gave to the coast the appearance of being hemmed in by an artificial wall. In some places were flat hollows, where we generally saw houses, or else some objects, such as boats, racks to dry fish upon, and other similar things, that proved their vicinity. The southernmost settlement on this coast was farther inland; it was a large village, consisting of very well built habitations; and we saw also a cultivated field, the tillage of which denoted a nation much more civilized than the Ainos. The confines of the high and low lands were in precisely the same parallel as on the north-east side, and were here distinguished by some mountains that we had seen on the opposite side, and now recognized. The high land terminated at this place, and we saw nothing before us, as far as the eye could reach, but the low sandy shore stretching S. S. W., and on which there were only here and there a few insulated sand-hills, perfectly resembling those we had remarked on the east side. These sand-hills, however, notwithstanding the bad materials of which they consist, had a picturesque appearance; and their irregular insulated situation, and diversity of form and height, gave them entirely the appearance of a large and ancient city. As we approached this sandy shore the depth also decreased, and was not more than eight and a half or eight fathoms. Towards evening the wind blew fresh from N. N. W. directly into the channel, and as the flat sandy beach still stretched more and more to the westward, and we must have steered S. W. to have kept parallel with the coast, I judged it prudent to haul our wind and stand to the westward, across the channel. On the extreme point of the land we per-

ceived just before dark a high hill, which, in the midst of this ocean of sand, bore a very remarkable appearance, and at no great distance from this was a large rock in form like a pyramid.

At day-break of the 13th August I made all sail, and steered at first S. E. to reconnoitre accurately the land that we saw in this direction: at eight o'clock I altered my course to S. by W.: we now perceived, at some distance, the same sandy coast upon which we had been the preceding evening, and shortly after could distinguish the continuation of it still more to the westward. At eleven we saw a high mountainous land stretching from S. W. by W. to west, that had hitherto been concealed from us by the thick mist in which it was enveloped: this must have been the coast of Tartary; and between its extreme point, behind which, farther inland, were two other chains of mountains of considerable height, and the coast of Sachalin, there was an opening of not more than five miles. This then seemed to be the channel leading to the mouth of the Amur, and to this I now bent my course: we were at the most five miles from its centre, and our soundings had diminished to six fathoms; and not thinking it safe to venture farther with the ship, I sent Lieutenant Romberg with orders first to row towards the point of Sachalin, until he came into three fathoms water, and then directly to the cape of Tartary, sounding across the whole width of the channel. At six in the evening he returned upon my firing signal guns, as we had entirely lost sight of him for two hours. He informed me that the rapidity of the current from the southward had rendered the advance very laborious, and he therefore could not have proceeded till within three fathoms, and have had still time left to sound in the channel. He had gone, how-

ever, in a direct line towards the point of Sachalin, until he got into four fathoms water, where he calculated upon being about midway between the ship and the land, and two miles and a half from both. He then rowed over towards the coast of Tartary, finding the soundings at first the same, but gradually decreasing to three fathoms and a half. At this moment the signal was made, and he returned: he brought with him a pailful of water, which he had dipped exactly in the middle of the channel, at the farthest point to which he had proceeded. It was perfectly sweet, and only one grain heavier than what we had shipped at the harbour of St. Peter and St. Paul, and precisely of the same specific gravity as the fresh water from Nangasaky; the water which was drawn up alongside the ship being of the same weight, and perfectly fit to drink. During our stay at the mouth of this channel the current ran with great rapidity from the south and S. S. E., and I had every reason to believe we were very near the mouth of the Amur, which was probably at no great distance from the promontory on the coast of Tartary.

The two points that form the entrance of this channel I have named after the second and third lieutenants of my ship: the westernmost on the coast of Tartary lying in 53° 26′ 30″ N., and 218° 15′ 15″ W. cape Romberg, and the easternmost on the coast of Sachalin, in 53° 30′ 15″ N., and 218° 05′ 00″ W. cape Golowatscheff.

As soon as the boat was hoisted in I steered for the coast of Tartary, and by sun-set we were within six miles of it: the depth was here nine and ten fathoms: a little to the northward of cape

Romberg were two islands, and from these a low headland stretched to the N. W. precisely in the direction of the coast. In some places the land sunk in such a manner as to make it doubtful whether this headland was not a chain of small islands, or else one single island of considerable magnitude, separated by a narrow channel from the land behind it.

At eight o'clock I lay by in nine and a half fathoms: cape Golowatscheff bearing S. W. 55°, cape Romberg S. W. 5°, and the northern point of the coast of Tartary N. W. 53°. This promontory lying in 53° 38′ 00″ N., and 218° 34′ 00″ W., I have named cape Chavaroff, in honour of the enterprising and learned Russian, who, in the year 1649, at his own expence, and with very little assistance, attempted the dangerous undertaking, to complete the discovery, then recently made, of the Amur, and to add this important acquisition to his country.

In the night the wind veered to S. E., and at day-break I made all sail along the coast of Tartary, in order to get out of the channel. The stream, however, drove us so fast to the southward, that, notwithstanding the wind was very fresh, and we had every rag of sail set, we were unable to lay the ship a N. W., and much less a W. S. W. course, the one I wanted to steer. We continued our attempt without success for two hours, although the ship ought to have run at least seven knots, to judge from the impulse of the wind and the quantity of sail we carried. At length, at six o'clock, as we were unable to stem the rapidity of the current and advance to the westward, I steered N. E. by E. to the north-west point of Sachalin, where it was my intention to come to an anchor in the bay, in which,

as we sailed by it, we had seen a considerable village, that I might have the opportunity of forming a nearer acquaintance with the Tartars who have taken possession of the northern part of Sachalin: at six in the evening we anchored in nine fathoms water, over a rocky bottom, one mile from the nearest land.

CHAPTER VI.

RETURN TO KAMTSCHATKA.

Stay in Nadeshda Bay—We find it inhabited by Tartars—Their mistrustful Conduct—Short Account of their Manners and Customs—And of their Houses—Supposed Number of Tartars settled in the North Part of Sachalin—Geographical Situation of Nadeshda Bay—We sail for the second Time towards the opposite Coast of Tartary, but without obtaining Sight of it—Its probable Direction—Impossibility of exploring the Coast of Tartary from the River Amur to the Russian Boundary—Plan I had projected for so doing in Japan—Necessity of beginning any Examination of these Parts at Udinsk—Proofs of Sachalin not being divided by a Channel from Tartary—Subsequent Confirmation by Captain Broughton of this Opinion—We proceed on our Voyage from Sachalin to Kamtschatka—Isle of St. Jonas—Laid down incorrectly—Constant Fog and stormy Weather—We cross the Kuriles—Anchor in Awatscha Bay.

We arrived too late to go on shore the same evening, and I therefore sent out a boat to fish, which, in two hours time, returned with an ample supply, sufficient to last the whole crew for three days. The fish were almost all of the salmon kind, and perfectly similar to those which are taken in such quantities in Kamtschatka, and are there called Tschewitscha. In the night a fresh breeze, accompanied by a heavy shower of rain, arose from the E. S. E., and owing to the badness of the bottom throughout the bay, which I had sounded in all directions, in the hopes of finding a spot of better anchoring ground, the

ship drove a few fathoms; the wind, however, abated towards midnight considerably.

The next morning I sent off two boats immediately, the one to fish, and the other to collect some wood which lay scattered near the shore, as our stock was almost exhausted; and about eight o'clock I went on shore myself with almost all my officers: every one of us being desirous of a walk on shore, a pleasure we had not enjoyed for a long time, we would not land near the village, but about a mile off, opposite the ship, at a spot near the mouth of a small rivulet. However we were disappointed in our hopes of a pleasant walk: for the sea-shore was bordered by an impassable fence of wood, so closely interwoven with briars and reeds, as to render it altogether impossible for us to penetrate through it, and we were forced to wade through the sand to the village.

Before we landed we were met not far from the shore by a large boat with ten people in it, who, as soon as we got near to them, all stood up, bowed to us, and made signs that we should go on shore: their mode of invitation was precisely the same as that of the people on the north side of Sachalin. They had fox-tails in their hands, which they flourished in the air, and then pointed towards the shore, bowing at the same time very low. Having performed this ceremony, and observing that it was, at all events, our intention to land, they rowed as quick as possible to the shore, where they arrived a few minutes before us, and immediately hauled up their boat. Our reception was the most friendly that can be imagined: we embraced each other heartily, nor could our pantomimical expressions of friendship be mis-

understood, although the intention was much more pure on our part than on theirs; for we soon observed that they were in great distress at our visit. I was surprised not to find a single Aino here (certainly the original inhabitants of Sachalin), especially as we had seen so many of them at the southern extremity of the island, but instead of them to find a race of men perfectly resembling the Tartars. Their boat was the first thing that attracted our attention; and by the time we had examined this we were perfectly convinced that they considered us in any light rather than as friends, and that their pretended joy at our arrival was merely a precautionary measure on their part, intended to conceal their evil purposes under the mask of friendship. The boat was full of spears, swords, and arrows; but not a single firearm; a proof of their being unacquainted with the use of these weapons; as they would not otherwise have omitted to provide themselves with them, their only intention in rowing off to meet us being to defend their colony against any attack on our part. The boat itself was of considerable size, but without either mast or sail. We now advanced towards the village, notwithstanding they endeavoured by all the means in their power to prevent us; but as soon as they perceived that we were bent upon going thither they all ran to their boat, which they instantly launched, and rowed away as fast as possible.

On our arrival at the village we found about twenty persons collected at nearly two hundred paces from their houses, among whom we recognised the men who came in the boat to meet us: one of them was now dressed in a fine silk gown worked with flowers, and made after the Chinese fashion; but the rest of his appearance by no means equalled this splendid

gown. He was undoubtedly the head of the colony, and in order to insinuate myself into his good graces I presented him with a piece of cloth of an orange colour, with which he appeared highly delighted; and divided some trifles among his companions, such as knives, needles, pieces of cloth, and the like. I now fancied I had convinced them that we were only come amongst them as friends, and that all motives for suspicion were removed; and we therefore indicated our intention of proceeding to their houses. This, however, immediately altered the scene: they placed themselves between us, and shewed in every way they were able their objection to our proceeding thither; at first we appeared to take no notice of their behaviour, and continued our walk at a slow pace in a body, upon which they all ran together, giving evident tokens of their fear and terror, but at the same time without following us. As I was unwilling to give this suspicious people any groundless cause for uneasiness at our visit, I immediately turned back; and taking the chief by the hand, endeavoured to convince him that we had not the least hostile intention towards them, and as a proof of my friendly disposition, and in the hopes of removing their fears, I took off my sword. I likewise gave him to understand that we would not enter their houses, but content ourselves merely with approaching them, and I endeavoured to persuade him, as well as his companions, to accompany us. A consultation now took place amongst them, after which they seemed to determine no longer to deny us their permission, and to accompany us. Their first intention of staying behind, when we shewed our resolution of proceeding to the village, notwithstanding their objections, appeared to me an open contradiction to the signs of fear they evinced; nor can I in any way explain it to myself, except by supposing it was their idea to have destroyed our boat,

towards which they frequently directed their looks, and then have revenged themselves upon us. The boat was only guarded by two persons, and, owing to the heavy surf, had been hauled up high and dry, so that they might easily have put this in execution. Their party did not now even remain with us, but some of them ran on in advance, in order to reach the village before us, taking a shorter cut through the wood, which we were unable to follow. At length we reached their houses, the first of which belonged to the chief, who now ranged himself with all his friends in front of it, making signs that it was his; and besides this precaution there were two lusty fellows standing immediately in the entrance, who gave us to understand by their pantomime that they should dispute our passage. As I had promised not to go in, we all appeared very indifferent upon this point, notwithstanding we were in the highest degree curious to see the interior of their dwellings, their style of living, and their families. After again distributing some presents among them we proceeded into the village as far as its other extremity, and in order to quiet the fears of the remaining inhabitants I prevailed on the chief to accompany us; to which he seemed at length to have made up his mind, and we walked on hand in hand. This circumstance, although it appeared to indicate the greatest friendship between us, was done with evident ill will on his part; for at every other step he stopped short, and by the most pitiful looks gave me to understand his wish that we should return; and it was only by a fresh present of a piece of cloth that I could keep him at all in good humour, or convince him, as I imagined I did, that our purpose was by no means inimical towards him; and his fear now probably arose from the doubt whether we might not carry our curiosity too far.

After a walk of nearly three hundred fathoms in length, and by a footpath almost concealed by the high grass, we reached the end of the village, where nothing struck us except a few houses at some little distance, apparently better built than the rest, and provided with chimneys. To these we now bent our way; and we found the first of them empty, so that they could not deny us the entrance to it: it appeared to have been only lately forsaken, for we found in it several family arrangements, for instance, a stone hearth, over which was a large iron hook, probably for the purpose of suspending their kettle, in each of the two corners of the hall. I did not allow myself to go any farther, and we now returned towards the chief's house, where a number of people were assembled, who bartered a few trifles of no intrinsic value, but curious to us. Even the chief humbled himself so far as to exchange his fine silk gown for a piece of cloth of moderate length; but in order not to appear less brilliant in our eyes, and to give us a high idea of his consequence, and perhaps of his wealth, he instantly retired into the interior of his house, and in the course of a quarter of an hour re-appeared in a fine red silk dress worked with flowers of gold, which in all probability he would have sold, as he did the other, if any customer had offered. Covetousness seemed to form a principal trait in his character, and of this he gave us a very remarkable proof; for although he had received from me several presents, which must have been considerable to him, he would not let us have a little dried fish, which we thought nicely prepared, and were desirous of tasting, until we had purchased it, and even then he insisted upon first receiving the price of it: cloth and tobacco, particularly the latter, for which they

appeared willing to give every thing they had, were what they set the most value upon; and they often refused to accept things which might have been of the greatest value to them, when instead of them they could obtain a few leaves: unfortunately we were not provided with any, and the boat's crew, therefore, who had brought tobacco with them to barter for things on their own account, made the most advantageous bargains, and one of our party who had given a silk handkerchief, worth at least two rubles, for a Sachalin hat, of no other value than as a curiosity, saw it immediately afterwards exchanged for a leaf or two of tobacco.

As the wind was rising, I was obliged to return on board by half-past ten: our curiosity was in some measure gratified, and our total ignorance of their language left us but little interesting to expect from a nearer acquaintance with these people, particularly as the entrance to their houses was entirely denied to us.

Thus it appears that the north of Sachalin is not inhabited by natives of the island: their mild and amiable character is probably the cause of their being oppressed by their neighbours, who are undoubtedly Tartars from the vicinity of the Amur, who have found their way along the neck of land that unites Sachalin to Tartary, probably since a very late period, into the country of the Ainos. A similar revolution awaits the southern possessors of Sachalin, where the Japanese have settled, who already consider the country as their own, and the natives as their subjects; but while the colonies in Aniwa bay are under

the orders and immediate superintendence of the Japanese government, the court of Pekin is in all probability entirely ignorant of the emigration of its subjects from Tartary. In this manner all traces of a people are lost who, two centuries ago, were in possession of the large islands of Sachalin, Jesso, and the greater part of the Kurile islands, after a gradual invasion of their country by their more warlike and powerful neighbours. They have almost entirely disappeared from the north of the island, for in Nadeshda bay I saw but one single person who appeared to me to be an Aino.

The race of its present inhabitants is too well known, apparently to require any particular description in this place; but as we were the first Europeans who landed here, and as a change of place may have produced some change in their mode of life, I think it right to mention the few things which struck us on our short intercourse with them, altogether of not more than two hours duration.

Their dress consisted of a parka of dogs-skin, or else a kind of gown made of fish-gut, such as in Kodiak and the Aleutic islands is called kamleyka. Their boots were invariably made of seal-skins, and on their heads they wore a flat straw hat very similar to those of the common people in China: their hair was long and plaited as it is worn there by the lower orders, and reached down as low as their hips; their shirts were made of blue cotton, and fastened with two brass buttons, and they wore long white stockings made of a coarse linen. The chief, with the exception of his silk gown, was as simply and dirtily dressed as the rest, from whom he was not to be distinguished

either by the fineness of his linen, or the superiority of his clothes in general: nor was any particular respect paid to him, but, on the contrary, he was treated by them with great familiarity. In fact, the only thing that rendered him at all remarkable was his beard, the rest being all shaved: nor did he, or any of the other people, wear the least ornament of any kind.

Their food must have consisted entirely of fish, for we could no where distinguish the smallest traces of husbandry, although there were several meadows in the vicinity of their village, apparently well calculated for cultivation, but merely covered with high grass; nor did we perceive any implements proper for the cultivation of garden stuff, of which the Tartars, as well as the Chinese, make so much use in all their dishes. They have therefore no vegetable, nor indeed any animal food; for, with the exception of a few dogs, I saw no kind of domestic animal, nor any sort of poultry, but, on the other hand, before every house was a large rack for the purpose of drying fish, which they do particularly well, and apparently in great plenty. Both in cleaning and preparing their fish they seem infinitely more expert than the Kamtschadales, at least those of the south; but, what I have never seen in Kamtschatka, there were immense heaps of worms near their racks, with which the ground was covered nearly an inch thick, a circumstance of by no means a pleasing appearance. Dogs they in all probability keep as well for their clothing as for their winter journeys, which was evident from their number, and from their sledges resembling in every respect the Kamtschadale Nartas, except in being larger. Their houses are of considerable size, and with the exception of those seen at the extremity of the village,

and of which we had examined the empty one, were all built upon piles about four or five feet above the ground, the space between which and the house itself was occupied by the dogs. A staircase of seven or eight steps led to a gallery about ten feet in width, in the middle of which is the door of the entrance hall, that occupies nearly half the width of the house; the gallery was not carried round it, but merely in front; and the hall was unprovided with furniture, at least in the chief's house, so that we may safely infer that there was a similar want of it in the rest. The chief's was likewise the only house of which the door was not blocked up, but this was guarded by two men, who, however, could not prevent our looking into it. We observed nothing but bare walls, and a door directly facing that of the entrance, which probably led to the apartment of their women, whom they kept most carefully concealed; nor could we procure sight of a single one, nor of any children, except a little one of between three and four years old, which was carried about before us. Their anxious fear lest we should approach too close to the women was in all probability the reason of their dislike to our visit; and nothing but this circumstance could have induced them to block up their doors and windows; which had evidently been done in a hurry, as appeared by the employment of single boards, merely fastened together by a rope. Round the houses were small apertures or windows which were all shut in with boards.

This village, which consisted of sixteen or eighteen houses, contained, probably, not more than sixty or seventy persons, for we only saw about twenty or twenty-five grown people; and it may easily be imagined that as many as possible were col-

lected, partly to defend their property, and partly from curiosity: that the other bay, more to the north, was far more populous, appeared not only by the greater number of houses, but likewise by the greater quantity of finely dressed people who came down to the beach to meet Lieutenant Löwenstern; and as these in all probability were chiefs, it is evident there must have been more people subject to them. Calculating, therefore, their number at double that of the north-western bay, namely, one hundred and forty; that of the inhabitants of another small village in the north bay at fifty; of a village on the north-west side, which we saw at some little distance, at one hundred; and reckoning besides these the number of the inhabitants of the scattered houses at another fifty, the whole number of Tartars who have come into Sachalin amounts to about four hundred persons; a calculation which I consider as rather below than above the real number.

This bay, which I have named Nadeshda after our ship, is rather open, and consequently not safe as an anchorage, particularly as the ground is every where rocky. It lies in latitude 54° 10′ 15″ north, and longitude 217° 32′ 36″ west. A plentiful supply of wood and water may easily be procured here, and there is besides an abundance of fish; but the situation is such as will preclude it from ever being much visited by navigators.

At one o'clock in the afternoon we arrived on board, and immediately got under sail. In the preceding chapter I stated that the rapidity of the current to the southward rendered it impossible for us to examine the opposite coast of Tartary; however I considered it of importance to obtain some farther

information upon the direction of this coast, and particularly whether it continues in the same line from cape Chabaroff, the farthest land seen by us to the northward, or whether from this point it takes a westward course, as I believed to be the case, and it, in fact, is laid down in the chart: concluding that the low head-land we saw to the northward of cape Romberg was an island, and the same which in the charts takes the direction of the coast in the form of a crescent.

Accordingly I steered S. W. by W. with a strong S. S. E. wind, and as we ran at the rate of not less than six and a half or seven knots, by seven o'clock we had gone a distance of thirty miles by the log. The horizon, both to the south and north-west, was perfectly clear, and any land of a considerable height could not have escaped us even at the distance of from twenty-five to thirty miles; but there was not the least appearance of any thing, even from the mast-head, although cape Chabaroff was certainly not more than twelve miles, by our calculation, to the south-west of us: this convinced us that there must be a strong current to the north, which was confirmed by our observations the next day; for by our reckoning we ought to have been thirty-five miles more northward, and this current must undoubtedly have acted upon us within the channel with much greater force than when we were again in the open sea; so that cape Chabaroff instead of being only twelve miles off, was, perhaps, double that distance, and more. This circumstance, and a little fog which covered the high land, were in all probability the reason of our not seeing the cape: but had the coast still followed a north-west direction from that point, and nine or ten miles farther, we must have approached so near to it, not-

withstanding the current, that it could not possibly have been concealed from us; and I consider this as a manifest proof that the coast of Tartary assumes a westward, perhaps even a W. S. W. direction from cape Chabaroff. We had only another half-hour's daylight, and therefore gave up all hopes of seeing the land; but before quitting the channel entirely, I was determined to employ an hour in steering directly to the westward, in order to judge, if possible, from the increase or diminution of the water, whether we were approaching the land or not. At seven o'clock our soundings were twenty-eight fathoms, and at eight, seven miles more to the westward, they had increased to thirty-five over a sandy bottom: judging from this we appeared to be receding from instead of approaching the land, and I looked upon this as a fresh proof that the coast of Tartary could not continue in the same direction from cape Chabaroff as before. A little before dark I made the men look out carefully for land in every direction, but nothing was visible; to the south-west, indeed, the man at the mast-head fancied it rather thickened, but he could not at all affirm that what he saw was land, and I now repented heartily that I had not employed the half hour of light which remained in continuing my S. W. by W. course: a direction in which the land, as well as the form of the coast, might probably have been seen more distinctly, although we could not in the time have stood in nearer than three miles and a half.

Gladly as I would have continued our discovery in the channel, and along the whole coast of Tartary, even from the river Amur to the Russian frontiers, by which means the geography of this part of Asia would have been greatly benefited,

I did not dare to undertake it. Upon our last departure from Kamtschatka I had been most particularly warned by no means to approach that part of the coast of Tartary which belongs to the Chinese, that I might not occasion any suspicion in the minds of this jealous and timid government, and thereby lead to a rupture that would be immediately followed by the suspension of the trade with Kiachta, so extremely advantageous to the Russians*. The opportunity we then had of prosecuting these discoveries was the most favourable I could have wished for: between the small islands in the vicinity of cape Romberg there is no doubt but that I might have found a secure anchorage; and there was most probably a good harbour in the channel that separates the island, in the form of a crescent, from the main, if, indeed, this channel exists, which I think pretty certain. From that place I might have prepared an expedition towards the mouth of the Amur, and the coast of Tartary; but these islands are not uninhabited, as we convinced ourselves†, and it would not have been possible for us to conceal, during a stay there of some days, to what nation we belonged. It is well known that the Chinese keep a guard of armed boats at the mouth of the Amur, of the possession of which they are particularly jealous; and although their discipline is perhaps not so strict as that of the Japanese, it was easy to foresee that a circumstantial account of our appearance would have been im-

* I knew nothing of the embassy of Count Goloffkin at that time on its way from St. Petersburg to Pekin; nor did I receive any information on this subject until our return from Sachalin, when notice was sent me of it from Petersburg.

† During the night that we passed in the vicinity of this island we saw fires in two different places.

mediately forwarded to Pekin. I could not, therefore, have ventured to anchor here; and this was the only place where it was possible for me to remain with the ship for any time in safety. I mention these reasons, which detained me from pursuing my discoveries farther to the southward, lest I should be accused of negligence on this head; for there are geographers who seldom do justice to navigators, not even those who, with the most enthusiastic zeal for the furtherance of this science, have exposed themselves to the most imminent danger. With La Perouse, for instance, they have expressed dissatisfaction for not attempting to explore the channel between Sachalin and Tartary, not recollecting that, although he had a good harbour from whence he might have sent out his boats, he expressly states that his long-boat was not decked, and that such an expedition would have been attended with risk in an open boat; besides that the season was already so much advanced, and the south winds so constant, that had he not been carried out of this narrow sea by a fortunate gale of two days duration, it is very problematical whether he could possibly have reached Kamtschatka that same year. Since then La Perouse, who has effected so much for the science of geography in these foggy seas, has been blamed for not having done more, how much greater reason had we to expect that a similar complaint would be lodged against us!

As some doubts may arise from his journal concerning the existence of a channel between Sachalin and Tartary, it formed part of a favourite plan I had conceived to obtain every possible certainty upon this interesting point: this was not to be done with a ship drawing sixteen feet and a half water, and it became necessary to employ the long-boat for the purpose. I

therefore availed myself of the time we had to spare at Nangasaky, as well as of the accommodating disposition of the Japanese government to supply us with every thing that was required for the use of the ship, to fit this boat, which was perfectly well built, in such a manner that it might safely have ventured into the stormy sea of Ochotsk, and have reached Kamtschatka, if, by any accident, we should have been separated. For this purpose I had her decked in, coppered her bottom, and supplied her with new tackle, sails, and every thing requisite for so long a voyage; and had appointed Lieutenant Ratmanoff to this expedition, who, as I communicated my plan to him in Japan, willingly undertook its execution, and employed himself with great zeal in carrying into effect the several improvements in the boat which I suggested. I intended that he should be accompanied by lieutenant the Baron Billingshausen, a very skilful and well informed officer, who was to be provided with a chronometer, a sextant, and a complete apparatus to survey and lay down according to astronomical rules, not only the whole north-west coast of Sachalin from the harbour from whence I proposed sending this expedition, but likewise the opposite coast of Tartary as far as the mouth of the Amur. In case a passage should really have been found, I had pointed out the bay of Castries as a place proper for them to complete their water, and to refresh themselves for a couple of days. This was my plan, in the execution of which I calculated, with some degree of certainty, upon finding a harbour on the north-west coast of Sachalin, where the ship might have remained in security for a fortnight, until the return of the long-boat. In this, however, I was disappointed, as is related in my account of our navigation along the coast of Sachalin: but even

if we had found a harbour I could then only have carried the smallest part of my plan into execution, owing to the written notice received upon our departure from Kamtschatka for the purpose of continuing the examination of Sachalin, not on any account to approach the coast of Tartary.

Although since the termination of our survey of Sachalin I am quite convinced that no passage exists to the south of the Amur between the coast of Tartary and this island; consequently, that the ascertainment of this point is only so far of importance as tending to confirm my opinion of the connection of the two, an opinion in which every person on board the ship, competent to judge, coincided with myself; it nevertheless appears to me that such an undertaking would be by no means useless, as a line of coast, at least eighty or one hundred miles in length, comprising the mouth of the Amur, still remains unexplored; and although the doubtful situation of this river is now reduced to a narrower space, it still cannot be said to be positively known. This undertaking, which is of political importance to Russia, and, in a scientific point of view, of consequence to geography, might be easily set on foot from the port of Udinsk, with a certainty of success, and unattended by any risk, provided some enterprising, and, at the same time, prudent and skilful officers, well acquainted with nautical astronomy, were to be selected for that purpose.

As I have frequently, with considerable confidence, stated my idea that there is no passage between Sachalin and Tartary, and as this question may long continue doubtful, I will here adduce, in a few words, my reasons for asserting such an opi-

nion: they are entirely founded upon the observations made by La Perouse to the south of this strait, and by ourselves to the north of it. La Perouse expected to find a channel in this place through which he might have passed into the sea of Ochotsk: a discovery that would have been of extreme importance, as the knowledge of these coasts, which he had the good fortune to be the first to navigate, rested merely upon conjecture, and it would have shortened his way to Kamtschatka considerably. He therefore penetrated as much to the northward as the size of his vessel permitted: but the farther he advanced, the more he found that the two coasts, both of which he at length saw at the same time, approached each other considerably; and that the depth of water decreased at the rate of a fathom to each mile. What particularly strengthened his opinion that he was in a gulf, and not near any strait, was, that there was no current; and there is no doubt that some would have been perceptible, if any channel, however narrow, had connected the sea of Ochotsk with the gulf of Tartary. La Perouse at length came to an anchor in nine fathoms water, and he would certainly have carried his ship farther, but that the southerly wind, which blows incessantly throughout the summer months in these parts, was so violent, and the waves at the same time so high, that he dared not venture, in so shallow a sea. He therefore only sent two of his boats to sound: one of which advanced three miles farther to the northward, where there were six fathoms water, and then returned to the ship. It is much to be regretted that the observations upon the specific gravity of the water, which the scientific persons on board both ships must undoubtedly have instituted, have not been made public; for had there been none,

or merely a trifling difference between the weight of this and the sea-water, it would have been an incontrovertible proof, in addition to the constantly pacific state of the water, of there being no passage. The information which La Perouse collected during his stay in the bay de Castries, notwithstanding his ignorance of the language, more than confirms this opinion; for when he had pointed out to the inhabitants the island of Sachalin and the opposite coast of Tartary in a drawing which he made for that purpose, leaving a channel between the two, they immediately took the pencil out of his hand, drew a line between them, and gave him to understand that a sand-bank, entirely overgrown with sea-weed, connected them, and that they had dragged their canoes across it. From this relation, and from the constant diminution of the depth, and the settled state of the water, La Perouse very rightly concluded that either Sachalin was connected with Tartary, or that the channel which separates these two countries must be very narrow, and at the utmost only a few feet in depth. He does not, indeed, positively state it; but this must be ascribed to his modesty: he was, apparently, unwilling to affirm what he could not substantiate, although he must have been convinced of the fact. The practice therefore of representing Sachalin as an island, and of calling the sea that divides it from Tartary the channel of Tartary, was continued, although if the connection of the two could be proved, Sachalin becomes a peninsula, and the channel must be a bay. Our observations, which were carried one hundred miles more to the north, leave no doubt upon the subject; for scarcely had we approached the northern point of Sachalin than we already found a considerable difference in the weight of the water; and as I kept as near as possible to the

north-west side of Sachalin, in the hopes of finding a harbour there, it is not possible for any river to have escaped us: it cannot therefore be said that this difference proceeded from any one flowing from thence into the sea hereabouts; the vicinity of the Amur must have been the true cause, as the water too assumed a dirty, yellow colour. After weathering the north point of Sachalin, as we sailed along the north-west coast, the water was found, upon every experiment, lighter; and finally, when close to the channel that separates Sachalin to the northward of the Amur from Tartary, the water drawn up the ship's side was perfectly sweet, and of the same weight as that we had on board, as I observed in the preceding chapter. If there existed the smallest passage to the southward of the Amur, the south winds, which, as La Perouse ascertained, blow invariably throughout the summer, must have carried such a quantity of sea-water into the basin where the Amur empties itself, that, after flowing to the northward through the channel which we discovered, it is impossible, even if it were to mix with the waters of the Amur there, that it should lose all its saline particles. However, as we found not the least salt in it, this tends to prove that there cannot be any passage to the southward of the Amur between Sachalin and Tartary; and to this may be added the violent currents from the southward, of which, in the preceding chapter, I have made particular mention, and which must have been much less rapid if the waters of the Amur could have found any other outlet.

These remarks I made at the time and on the spot, and as such entered them in my journal. On my arrival in China I

was not a little rejoiced to find Captain Broughton's voyage, which had appeared in print since my departure; and as this is in every one's hands, it will be seen that my ideas upon the junction of Sachalin with Tartary were perfectly well founded. Captain Broughton advanced in a small vessel drawing not more than nine feet, eight miles farther north than La Perouse, came into two fathoms water, and at length discoved a bay three or four miles in depth; this he sent a boat to examine, and found it closed in on all sides by low sand-hills, nor was there any where the smallest trace of a passage. Here then was the extremity of the great gulf of Tartary: and if there still had existed any small channel which escaped the penetrating eye of Captain Broughton, and of Mr. Chapman, the master of his ship, who examined the bay, it must certainly have occasioned some current. He, however, mentions the particular stillness of the water; a convincing proof to his mind of his being land-locked, and at the bottom of a large bay. Any physical experiments upon the specific gravity of the water were here unnecessary; but it is now sufficiently proved that Sachalin is connected with Tartary by a flat neck of land, and is consequently only a peninsula, although it is possible, and even probable, that formerly, and perhaps at no great distance of time, it was an island, as it is laid down in the Chinese charts; and has only been gradually joined to Tartary by the collecting of the sands from the Amur. What, therefore, since La Perouse, has been called a channel, must now take a new name, and be known as the gulf of Tartary.

On the 15th August, at eight in the evening, I altered my

course from west to N. N. E. On my departure from St. Petersburg I had been particularly directed to examine the Schantar islands, which lie in the fifty-fifth degree of latitude, about sixty miles to the eastward of the port of Udinsk, and of the number and relative situation of which there was no accurate account, notwithstanding their vicinity to a known settlement. I left Kamtschatka with the express intention of examining these islands after concluding our survey of Sachalin; and I might now have done so previous to the stormy season, had I not been compelled to be at Canton in the early part of November, as well to terminate the business we had to transact there before the conclusion of the north-east monsoon, as that the Neva, which was to arrive about that time with a cargo of furs, might not have to wait for us. This circumstance induced me to give up the examination of the Schantar islands, and to hasten back to Kamtschatka, where I wished to arrive before the expiration of the present month; for I could easily foresee that our stay there would be of at least four or five weeks duration. However, in order that our voyage there might not be entirely devoid of geographical interest, I resolved upon ascertaining some points upon its western coast, between the fifty-sixth degree of latitude and Bolscheretzk, as I believe that no astronomical observations have ever been made to the northward of that point: I now therefore directed my course thither.

At ten o'clock the wind which had been pretty fresh at S. S. E. during the whole day, increased to a storm, and continued so throughout the night and the next day, the 16th August. About noon the sun made his appearance, and we had an observation

in latitude 55° 24′, by which it appeared that in the twenty-two hours since we quitted our anchorage we had been carried thirty-three miles by the current. Towards evening the wind fell a little, but still blew very strong throughout the night. On the 17th August, at about two o'clock in the morning, we suddenly made the land to the northward, which, from its little extent, must have been an island: I therefore lay by immediately; but finding that we were not very near to it, we beat up under easy sail, to examine closer into what I then considered as a new discovery; for the nearest land to us, the island of Jonas, ought, by Admiral Sarytscheff's chart, to have been three degrees to the east. The man, therefore, who first discovered this island immediately obtained the premium awarded to him who should perceive any land where I had not expected it. At daybreak we discovered it to be a large rock, similar to what Jonas island is described to be, and that it was only necessary for us to determine its situation accurately, since, in a stormy night, or during a fog, no where more frequent than in the sea of Ochotsk, it might prove dangerous to the navigator. The day was thick, and I already despaired of obtaining an observation; but fortunately the sun appeared about ten o'clock, and at noon we caught sight of it through the clouds. Dr. Horner likewise got some altitudes after its culmination, from which he likewise calculated the latitude, and found it to agree within half a minute of that deduced from the meridian altitude. At noon the island bore N. W. 32°, distant about seven or eight miles, and the breakers on the rocks which surrounded it were clearly to be distinguished. I held on to the N. E. until two o'clock, when it bore due west, and quitted it after being unfortunately convinced that it was no new discovery, but Billing's Jonas island, although, as

we ascertained an error of nearly three degrees in its longitude, we certainly deserve the title of the second discoverers of this rock, a knowledge of which can only be of consequence, from its dangerous situation in this sea. With regard to the correctness of the longitude assigned to this island, I trust that no doubts can arise; as after an absence of two months from St. Peter and St. Paul's, Arnold's large time-piece was only thirteen minutes on an average, and Pennington's twenty-six minutes too much to the west. The true situation of this island is 56° 25′ 30″ N., and 216° 44′ 15″ W.: in Admiral Sarytscheff's chart it lies in 56° 32′ N. (in the journal, probably owing to some error of the press, 56° 55′), and 146° 12′ east, or 213° 48′ west of Greenwich. In the latitude, therefore, there is a difference of 6½′, and in the longitude of 2° 56′ from what resulted from our observations. As Jonas island lies to the south of Ochotsk in Admiral Sarytscheff's chart, I expected likewise to find an error in the longitude of this town; for the island was discovered on the third day after he quitted Ochotsk, and it was not possible that, in three days, there could be a mistake of as many degrees in the ship's reckoning: and this error, upon a nearer observation, was really found to exist; Ochotsk being laid down in the above-mentioned chart in 145° 10′ east of Greenwich. In the year 1741, Mr. Krasilnikoff, of the academy, made the longitude of Ochotsk 143° 12′ 30″; and as his longitude of St. Peter and St. Paul varies only a few seconds from that stated by Captains King and Wales, it may be safely concluded that Krasilnikoff's longitude is the correct one, and that the difference of two degrees between his determination and Billing's can only be considered as an error on the part of the latter astronomer. If, however, Billing's longitude of Ochotsk

is more correct than that adopted by the academy, and is really founded upon astronomical observations, our island may, perhaps, prove after all to be a new discovery.

Jonas island is merely a bare rock, about two miles in circumference, the height of which is calculated at two hundred toises: it is surrounded on all sides, except to the west, by single detached rocks, against which the sea breaks with violence, and which probably extend to some distance under the water. At the time this island lay to the northward of us, at the distance of about twelve miles we had fifteen fathoms water; but when we had brought it to the west, and were about ten miles from it, we could not obtain soundings with a line of one hundred and twenty fathoms: the depth to the northward in the vicinity of the island must have been still less, for Admiral Sarytscheff mentions in his voyage, that, at a distance of fifteen miles bearing S. by W., there was not more than twenty-seven fathoms.

The wind for some days had blown from the east, E. N. E. and N. E., during which there had been a constant fog: and when this cleared away for a few minutes it was instantly succeeded by dark hazy weather and heavy rain. These constant east winds compelled me to take a southerly course, and I was therefore deprived of all hope of making the west coast of Kamtschatka in the parallel of the fifty-fourth and fifty-fifth degrees. On the 20th of August, about noon, the clouds broke a little, and after a lapse of several days we at length got an observation in latitude 53° 20′, and longitude 211° 20′, nine miles to the southward, and forty minutes to the east of the

ship's reckoning. The wind now veered to the north-west, but only for a few minutes; for it soon shifted again to the south-east, and brought with it the weather which almost always accompanies it from this quarter; a thick fog and heavy rain alternately: we had now also this kind of weather with the west wind, but not so regularly. On the 22d and 23d August we were becalmed, and Dr. Horner employed the time in making experiments upon the temperature of the water; the first in all probability that have ever been made in this sea.

At length we obtained a gentle breeze from W. N. W., which gradually freshened; we were, however, still enveloped in the most impenetrable fog. The barometer had fallen to twenty-eight inches nine lines, which seemed to announce a storm; but we had made frequent experience that, in this horrible sea, the barometer not only sinks considerably, but also without any subsequent stormy weather: an experience which was now again confirmed. I intended passing through the Kuriles, between the islands of Charamukotan and Schiaschkotan, which would give me, as I hoped, an opportunity of seeing Tschirinkotan, concerning the latitude of which, as well as of the four rocks discovered by us, and named the Trap, there was still an uncertainty of some minutes. For this purpose we steered in that direction: the sun did not make his appearance even for a minute, we were enveloped in a thick mist, and awaited with great impatience until a clear day should enable us to ascertain where we were, as, owing to the rapid currents which reign in the vicinity of the Kuriles, we could not expect to find ourselves in the precise spot where we should be by our reckoning.

On the 26th August, after passing the last twenty-four hours in the greatest uneasiness, from my uncertainty how near we might be to the islands, or in what course to continue, the fog at length cleared away towards noon. We were much to the northward of our reckoning by the log, and instead of being near Charamukotan we now saw the islands of Schirinky, Monkanruschy, and Alaid. I must frankly acknowledge, that we were all so completely weary of cruizing about in the constant fog that I could not persuade myself to run back to the southward, for the purpose, as was my original intention, of passing between the sixth and seventh island, but availed myself of the clear weather we now had, and of the fair wind, to pass this dangerous chain of islands before we should again be enveloped in mist. I accordingly steered between the third and fourth, and then between Poromuschir and Onnekotan, or the second and fifth; a passage which, of all those among this chain, is by far the widest and safest, and therefore the only one navigated by the Russian merchant ships. At noon we were by observation in latitude 50° 04′ 32″, and longitude 204° 57′ 21″. Monkanruschy bore S. W. 49°; Alaid N. E. 25°; and a point on the south coast of Poromuschir, which we at first, but incorrectly, took for the southernmost cape of this island, which is in latitude 50° 03′ 50″ south-east. The southernmost point of Poromuschir we found, by observation, to be in 50° 00′ 30″ N., and 204° 35′ 46″ W., and I have named it Wasilieff, in honour of the count of that name: the land in the vicinity of this cape is very mountainous, as is indeed almost all the northern part of Poromuschir; and after gradually decreasing in height, it terminates near the cape in a long, flat, sandy shore, which stretches very far to the southward. This extremity, owing to its being so low, was not seen by

Captain King, for, according to him, the southern point is in 49° 58′. At twenty minutes past one it bore due east nine miles, and three hours 30′ due north at the distance of three miles, so that we had a very good opportunity of ascertaining its longitude. The south-west side of Poromuschir is not so mountainous as the south, and its appearance is diversified by alternate hills and valleys. The shore was of craggy rocks, on which the snow lay in many places; but this, probably, had only recently fallen. The south-west side may be easily distinguished by its two peaks, the southernmost of which is of tolerable height; but the other, which lies on the south-west point, where the land of itself is very high, is exceedingly lofty. I have named it peak Fuss, a name which obtains an honourable consideration in the scientific annals of Russia: it lies in 50° 15′ 10″ N. and 204° 49′ 30″ W. From the south-west point, looking westward as far as its northern point, we saw nothing; but we had a more particular view of the south-east side as we sailed along within a short distance of it. After weathering cape Wasilieff, I altered my course parallel with the coast; and we fell in with some pretty violent squalls, that made me aware of the bad condition of my rigging, which had suffered more during our navigation of the sea of Ochotsk than in thrice the same space of time in a more favourable climate. From cape Wasilieff the direction of the coast is nearly N. E. by N. as far as a point of land nineteen miles from it: it is of tolerable height, although at the extremity it terminates in a flat neck of land. The coast is at first flat, as at the south point, and then gradually increases in height, and forms a chain of tolerably lofty mountains, which are, in many parts, covered with snow, that probably never disappears throughout the year, July and August being the only summer

months in this raw climate. Although the general appearance of the southern coast of the island is mountainous, yet it is diversified with valleys, which appeared to me very fit for cultivation, notwithstanding there was nowhere the least appearance of any, nor indeed of this part of the island being inhabited.

The south-east point of the island, and another situated in 50° 19′ 10″ N., and 204° 14′ W., form a considerable bay, apparently more than five miles in depth, and between the crags on the shore there was a large inlet, where there is probably a good harbour. The direction of the coast from the north point of this bay is N. E. 48°, as far as the east point of the island. It lies in latitude 50° 28′ 00″, and longitude 203° 51′ 00″, and is remarkable from having a high mountain near it. Another, if any thing rather higher, lies in the same direction, only somewhat to the northward of the first: the whole of this coast is mountainous, and the shores steep and rocky; the direction from the east to the north point of the island is N. N. E.; but this we could not clearly distinguish, as the island of Sumschu intervenes, between which and the north-east side of Poromuschir there is a channel, at the most a mile and a half wide. The next day, however, we saw the north point of Poromuschir over the flat island of Sumschu: at eight in the evening we were not above five miles from land, and our soundings at this distance were thirty-five fathoms over a rocky bottom. Monkanruschy at that time bore S. W. 76°, and the east point of Poromuschir N. E. 30°. After a calm of some hours duration, during which we were rapidly driven towards the land, a fresh north-west breeze arose, with which I stood off the coast during the night. At

four in the morning I again steered to the northward: at day-break on the 27th August we saw to the northward the high peak on the southern point of Kamtschatka, which I have named Koscheleff, and at eight o'clock over the island of Sumschu, Alaid, and the north point of Poromuschir, in a line bore N. W. 66°. Peak Koscheleff at the time bearing N. E. 2° 30′.

Sumschu is altogether level: its southern point terminates in a flat neck of land, and so does the north end, with the exception of a few inconsiderable hills, the only ones on the whole island. A little before noon we saw cape Lopatka; like Sumschu, to which island it was probably once connected, it is very flat, and the channel between them is said to be full of shoals, notwithstanding which it has been navigated by small vessels, owing to the vicinity of the coast; a great object with the early frequenters of this sea. The frequent shipwrecks produced, however, an order, as I learned at Kamtschatka, prohibiting ships from sailing through this channel.

At noon the east point of Poromuschir bore N. W. 80°; Alaid N. W. 78°; the south end of Sumschu N. W. 89°; its north-west point N. W. 62°, and in this situation we observed in latitude 50° 38′, and longitude 203° 00′ 42″. Our distance from the nearest land, namely Sumschu, was twenty-two miles; the eastward variation of the needle, by our observations to-day, was 5° 06′ 30″; the mean between this and the observation of the preceding day 5° 29′ 45″.

On our voyage from Kamtschatka to Sachalin we ascertained cape Lopatka to be in latitude 51° 03′; but we could not see its extremity very distinctly, and therefore concluded there must

have been some error in this observation, Captain King laying it down in 51° 00′, and Admiral Sarytcheff in 50° 56′. I accordingly resolved to stand in as near as possible to it, the wind, which blew fresh from the westward, enabling us to steer north, the course we wanted to lay for this purpose. But shortly after noon the sky became clouded, and the land was enveloped in a thick mist. At three in the afternoon I reckoned that we were in 51° 00′, and as I found my hopes of distinctly seeing cape Lopatka entirely frustrated, I now steered N. N. E., and at four o'clock, being too near the land which runs in a north-east direction, I steered N. E.: peak Koscheleff then bore N. W. 35°. The wind throughout the night blew very fresh from the westward, with a perfectly clear, serene sky: such delightful weather we had not experienced since our departure from Kamtschatka. At day-break on the 28th August we saw cape Poworotnoy bearing N. W. 7°, at a distance of from twenty-two to twenty-four miles: the volcano bore N. E. 1° 30′, Shipunskoy Noss N. E. 50°; at eleven o'clock it fell calm, and continued so until eight in the evening, to our great annoyance, as we expected several letters and packets to be waiting for us at St. Peter and St. Paul. We not only looked forward to the letters by the ordinary post, but likewise answers to those which we had sent the preceding year, previous to our departure for Japan, and which I expected to be brought by the courier who was to be dispatched a few months earlier than the present time. For some days past the subject of our conversation had been the interesting news we should receive there, particularly with regard to the political events in Europe, which, during the two last years, we calculated upon finding very curious and interesting; every delay, therefore, particularly when we were so near the

place, was extremely unpleasant to us. It was not until the 29th August, at eight in the evening, that we ran into Awatscha bay, and the next afternoon at three o'clock we anchored in the harbour of St. Peter and St. Paul, eight weeks precisely since we sailed from Kamtschatka. During this time seldom a day passed in which we had not been wet through, either by the rain or mist; and yet in all the voyage we had not a single invalid, notwithstanding our total want of fresh provisions, and that our antiscorbutic remedies were entirely exhausted.

CHAPTER VII.

LAST STAY OF THE NADESHDA IN THE HARBOUR OF ST. PETER AND ST. PAUL.

The Nadeshda causes considerable Alarm in St. Peter and St. Paul—Arrival of a Transport from Ochotsk—The Provisions brought by it are for the most Part useless—Usual Method of salting Meat at Ochotsk, and of conveying Biscuit—Arrival of a Vessel belonging to the American Company from Unalashka—We hear of the Neva—Lieutenant Koscheleff arrives from Nischney-Kamtschatka with full Powers from the Governor to provide the Nadeshda with every Thing wanted—The Officers of the Nadeshda erect a Monument to the Memory of Captain Clarke, and the Astronomer Delisle de la Croyere—The shipwrecked Japanese escape from Kamtschatka—Iwaschkin—The History of his Exile—The Wereschtschagins—The Nadeshda in leaving Awatscha Bay runs on a Sand-bank, which occasions a Delay of three Days—She quits Kamtschatka—Astronomical and nautical Observations in the Harbour of St. Peter and St. Paul.

OUR arrival in St. Peter and St. Paul occasioned no little alarm: the period of our intended absence, at the expiration of which we were to be looked for again at this place, was fixed at two months; the officers, however, and most of the inhabitants of the town thought it very improbable that we should be punctual to our time; nobody on the appearance of the Nadeshda would believe it was her, and no other ship of the size being expected, they immediately concluded it must be an enemy, and some families already began to fly with their goods and effects to the neighbouring mountains. Their fears were so

great that they allowed themselves no time to reflect: it seemed more natural to the inhabitants of St. Peter and St. Paul that some hostile power should have thought fit to send a vessel half round the globe in order to conquer a spot, the whole wealth of which consisted in a few dried fish, and where her crew would scarcely have found provisions for a couple of months, than that this ship could be the Nadeshda, whose arrival they ought to have expected. By the latest intelligence, not above half a year old, Russia was in a state of perfect peace with every power; and yet they could not be pacified until the soldier, who was posted on the hill near the entrance of the harbour, went into the town, and assured the people that the ship could be no other than the Nadeshda, as he was not only well acquainted with her form, but was convinced of its being this ship, which was very remarkable from her top-gallant-masts being extremely short in proportion. Having been an old companion of Billings, he had obtained the reputation of great knowledge in these matters, and they very gladly believed his report.

There was not a single ship in the harbour: neither the packet-boat from Ochotsk nor the transport which was to bring me provisions were yet arrived, although they had been hourly expected during the last six weeks; we were therefore disappointed in our hopes of finding letters, and particularly uneasy at the non-arrival of the packet. As the passage across the sea of Ochotsk, and especially the navigation through the Kuriles, is very dangerous, and the voyage to St. Peter and St. Paul is seldom executed in less than four weeks, the packet-boat had been directed to run into the Worofskaja, a river on the western coast of Kamtschatka in latitude 50° 15′. This river is well

suited for small vessels to put into, as there is a depth of seven or eight feet water, and it is not more than one hundred and ten wersts from Werchnoy-Kamtschatka, the future seat of government. The passage from Ochotsk is so short, that with any thing of a fair wind it may be run in four days; and we were almost convinced that the packet had been lost, with the letters upon which we had calculated so much—an imaginary loss that proved the source of great trouble to us all. But our grief was of short duration; for early on the morning of the 2d September word was brought me that a two-masted ship had come to an anchor in the bay, and I immediately sent an officer, who in a couple of hours returned with Lieutenant Steinheil, the commander of the imperial transport Ochotsk. From him we received the so anxiously expected letters, which came down to the date of the 1st March of the current year. A messenger whom Count Romanzoff had afterwards sent from St. Petersburg, and who had performed the journey to Ochotsk in sixty-two days, brought me letters down to the 31st April, the contents of which were the source of great consolation and pleasure to me. They contained the answer to what I had sent the preceding year, previous to our departure for Japan, and I found in them the most ample recompence for all the disagreeable circumstances that had befallen me in so many shapes during our voyage. Besides very flattering letters from the ministers of marine and commerce, there were two letters addressed to me by his imperial majesty himself, in one of which the emperor was pleased, in the most gracious terms, to express his satisfaction with me; in the other the same flattering expressions were accompanied by a reward which very much exceeded my expectations. This testimony of the satisfaction of my too gracious monarch, with the suc-

cessful issue of the first part of my voyage, affected me deeply; and the conviction that the second, the most important and useful, though at the same time fatiguing and dangerous part of the expedition, had been terminated in a manner that could not fail of giving him satisfaction, made me perfectly happy. With regard to the latter part I felt no kind of uneasiness: for should any misfortune befall us on our return to Russia, it would be in seas which are every year navigated by ships of all nations, and we had already secured the honour due to our undertaking. In order, however, to secure the fruits of our voyage against any accident on our return, I determined upon sending a short account of our discoveries, with all the charts we had prepared, by an estafette over land to St. Petersburg, and Mr. Tilesius prepared a considerable number of drawings of objects of natural history, to be sent by the same opportunity to the academy. But these valuable articles very nearly shared the fate against which I was so anxious to secure them. Lieutenant Steinheil appeared to me a clever officer, and the vessel he commanded being very well constructed, I sent them by him to Ochotsk: he quitted Awatscha bay on the 20th September, but could not reach the place of his destination, and was forced to return to Kamtschatka, where his ship got upon a bank near Bolscheretzk, but was fortunately saved. The only unpleasant circumstance attending this accident was, that our dispatches, instead of reaching St. Petersburg in the beginning of December, arrived six months later, as they could now only be forwarded from Kamtschatka by the winter post, and were therefore obliged to be sent round the long way by Ishiga.

All our rigging had suffered so much during our navigation on

the foggy coast of Sachalin, that it required a thorough repair. The ship was therefore immediately unrigged, all hands set to work, and the various tasks performed with the greatest zeal and alacrity. The moment was now come when we were to commence our voyage back to Russia; every instant of time gained promised a more speedy arrival in our country; and no greater stimulus than this could be required. I had the ship entirely unloaded, even to the ballast, as well in order to repair the water-casks, as to take in about six thousand pud more of ballast, in lieu of the iron which we now intended to leave here. For the purpose of avoiding a disagreeable and laborious work, I bespoke seventy fathoms of wood here upon our return from Japan; for it was necessary to provide ourselves in Kamtschatka with this article for the whole voyage, which is expensive in China, and still more so in St. Helena, and at the Cape of Good Hope; and we could now receive the wood on board perfectly dry. As the conveyance over land of any article to Kamtschatka is extremely difficult and expensive, I determined to keep merely just sufficient to last out our voyage to Cronstadt; every thing else I left here, and among other things a ship's anchor, with an entire new cable.

I took only a very small part of the provisions brought for us from Ochotsk, finding them all so bad that I would gladly have dispensed with them altogether; but as it was uncertain whether we should be able to procure a sufficient supply for the whole voyage at Canton, I provided myself with a sufficient stock of salt-meat for three months, and of biscuit for four, besides a few puds of butter. I left behind me two-thirds of the provisions destined for me, well foreseeing that even the small

quantity I took would spoil before it could be consumed. The salt-meat was preserved with difficulty for six weeks, and what remained on our arrival at Canton we were forced to heave overboard. Not only were the casks, in which the meat was to be kept, bad, but too little care had been taken in salting it; and I was informed that at Ochotsk, in order to save salt in preserving their meat, they make use of sea-water, which if true, although I rather doubt it, perfectly explains the reason of its being so soon spoiled. The biscuit also soon became mouldy, and on our return from China it was rejected even by a species of animal which is otherwise accustomed to eat any thing. I carried several casks of it to Cronstadt, as a specimen of the biscuit baked in Ochotsk, after being a little time in use. The manner of conveying it to Ochotsk will perhaps account for its becoming so soon useless, being crammed into leathern bags, an operation by which it is entirely crumbled to dust. The biscuits that touch the bag soon decay, the leather, in order to render them the more capacious, and for the easier sewing them together, being moistened, by which they become perfectly unwholesome. This is likewise the case with the grits, which are conveyed in the same manner; for as the dampness of the bag easily pervades its contents, they become musty and useless: and the few bags of this article which I took with me, in order to give my crew a little change, as they were almost tired of the Japanese rice, were completely spoiled when we came to use them. I cannot at all comprehend why the biscuits and grits are packed in these leather bags in Ochotsk; a practice that could only then be excusable if their conveyance became less expensive by it, which is not the case, the cost of such a bag being three roubles and a half in Ochotsk; nor can it be used more than once, as it

is of no farther service the moment it is cut open, unless the seam is very carefully divided, and even then suffers materially. The crown, at least, never uses these bags a second time, and no care is expected to be taken of them, the merchant being always paid their full value. On the other hand, a new cask made of deal costs only five roubles, and these, if they were used for the conveyance of biscuits, for which purpose they need not be so strong as a meat cask, would last several years without injury. It takes three bags to fill one cask; so that if the cask were even employed but once for this purpose there would be a saving of three roubles and a half in every ton, without calculating that of one half the biscuit, which is now lost by the present mode of packing it. Leather bags may be very proper for the purpose of conveying provisions to Ochotsk, there being no carriage road from Irkutsk to Ochotsk, so that goods can only be conveyed on the backs of horses, or of reindeers; but it is very strange that this method should be extended to the conveyance by sea from Ochotsk to Kamtschatka. The butter was so bad, that although I had it thoroughly washed, salted, and packed in small barrels, we could not eat it, and I was compelled to use it on board the ship instead of grease: but when the mode of preparing and conveying it is known, no wonder can be felt at its being perfectly unserviceable, for it was brought from Irkutsk in baskets quite fresh and unsalted, and could not, therefore, fail of becoming rancid and sour; and it would have been better, and more economical, if merely a quarter of the quantity demanded had been sent us, properly prepared, in such small jars as in this country are used for the conveyance of provisions. This short account of our provisions is sufficient to shew with how little care and precaution even more im-

portant and extensive commissions are executed in this country. A sum of fifteen thousand roubles was thus expended, without the least advantage being derived from it.

On the 21st of September the Constantine, a small vessel belonging to the American company, arrived in the harbour of St. Peter and St. Paul: she was commanded by M. Potopof, a master in the royal navy, was on her voyage from Unalaschka to Ochotsk, and had put in here for a supply of water. After a week's stay she sailed again out of the bay; but, as we have since learned, was compelled by violent gales to put back to St. Peter and St. Paul, and winter there; and it was owing to her short supply of water that the vessel did not reach the place of her destination until nine months afterwards.

From M. Potopof we learned that the Neva had had a bloody action with the natives of Sitka, in which some of her people had been killed, and several wounded; and we could not but consider ourselves fortunate, that instead of carrying on warlike expeditions against savages, we had undertaken a less dangerous, but at the same time it is to be hoped, a much more profitable one.

On our arrival at St. Peter and St. Paul I immediately sent an estafette to Nischney Kamtschatka to apprize the governor of it. I had not indeed any hopes of seeing him again, his occupations scarcely admitting of his undertaking so long and dangerous a voyage a second time in the course of the same year; nor could I have wished such a thing, as I learnt that, on his return, he had nearly lost his life on the river Kamtschatka,

having escaped with the greatest difficulty. I, however, expected his brother, who had accompanied us on our voyage to Japan: and after a lapse of a month he arrived to our no small joy, accompanied by Major Fredirici, who, during our last expedition, had made the journey to Nischney with the governor. Lieutenant Koscheleff had full power from his brother to assist us with every thing we might stand in need of; but the most extended authority would not have been of the least advantage, unless accompanied by the warmest and most anxious wish of being serviceable to us. Every possible step was taken to procure for us such articles as Kamtschatka produces. Six large oxen had been previously forwarded from Werchnoy, that they might arrive in time to recover from the fatigues of the journey in the rich meadows that surround St. Peter and St. Paul; a quantity of fish was dried and salted, and several tons of wild garlic procured, and biscuits were baked, which proved of infinite service to us, as those sent from Ochotsk could only be used in cases of the utmost necessity. We were provided with a great abundance of potatoes, and with some other kinds of vegetables, though not in equal proportion, as they required to be brought from a distance of three hundred wersts. In a word, we had only to express our wishes, and the utmost exertions were immediately made to comply with them. I shall never forget the zealous endeavours of this amiable young man, in whose praise I have already spoken, but can never say enough, to provide every thing for our ship.

As it was evident, upon our arrival, that the many things necessary to be done on board would occupy a space of not less than four or five weeks, the officers of the ship had formed a

plan of renewing the monument which had been erected to Captain Clarke. From Cook's and La Perouse's voyage it is well known that Clarke was buried in the town of St. Peter and St. Paul under a large tree, to which a board with an inscription was affixed, mentioning his death, his age and rank, and the object of the expedition in which he lost his life. We found the escutcheon painted by Webber, the draughtsman of the Resolution, and suspended by Captain King in the church at Paratunka, in the portico of Major Krupskoy's house, nor did any one appear to know what connection it had with this painted board; and as there has been no church for many years either in Paratunka or St. Peter and St. Paul*, it was very fortunate that the escutcheon was not entirely lost. La Perouse finding the board on the tree rotting very fast had the inscription copied on a plate of copper, adding, that it had been restored by him; and as this inscription is not given in Cook's voyage, and every thing relative to him and his companions must be interesting to all, I cannot avoid transcribing it here from La Perouse's copy.

AT THE ROOT OF THIS TREE LIES THE BODY OF
CAPTAIN CHARLES CLARKE,
WHO SUCCEEDED TO THE COMMAND OF HIS BRITANNIC
MAJESTY'S SHIPS, THE RESOLUTION AND
DISCOVERY, ON THE DEATH OF CAPTAIN JAMES COOK, WHO
WAS UNFORTUNATELY KILLED BY THE NATIVES
AT AN ISLAND IN THE SOUTH SEA,
ON THE 14TH OF FEBRUARY IN THE YEAR 1779,
AND DIED AT SEA OF A LINGERING CONSUMPTION THE
22ND AUGUST IN THE SAME YEAR, AGED 38.

* A church is now building, but does not proceed very rapidly.

Copié sur l'inscription Angloise par ordre de M^{r} le Cte de la Perouse, Chef d'Escadre, en 1787.

This plate La Perouse caused to be nailed on the wooden monument. We found it there, although it had more than once been removed: the monument itself, however, appeared to promise but short duration, for the tree, which was more than half decayed, could not stand above a few years longer, and it was become necessary to raise a more durable one to Cook's companion. We also found the coffin containing the remains of de Lisle de la Croyère as we were digging up the ground a few paces from Clarke's tomb, after having long sought for it in vain *. The memento of these two persons, equally skilled in the science of navigation, and who had both lost their lives in one of the most inhospitable quarters of the globe, could now be united in one monument; and for this purpose a durable pedestal of wood was erected as near as possible to the old tree, in order still to preserve the locality; and over this a pyramid, on one side of which the plate which La Perouse had engraved was fastened; and on the opposite side a copy of Captain Clarke's escutcheon, made for the occasion by M. Tilesius †. On the other two sides were the following inscriptions in Russian:—

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* From La Perouse's voyage we learn that he had likewise erected a monument to de Lisle de la Croyère; and upon a copper-plate had engraved an inscription containing a few of the particulars of his life. Of this there was not the least vestige remaining, though no longer space than eighteen years had since elapsed.

† The original, painted by Webber, was given up to the commander of St. Peter and St. Paul, in order, as at first intended, that it might be placed in the new church that was building.

"In the first voyage round the world, undertaken by the Russians under the command of Captain Krusenstern, the officers of the ship Nadeshda erected this monument to the memory of the English Captain Clarke on the 15th September, 1805."

And on the side facing the south, "Here rest the ashes of de Lisle de la Croyère, the astronomer attached to the expedition commanded by Commodore Behring in the year 1741."

This monument was constructed under the direction of Lieutenant Ratmanoff, and his anxiety to complete it previous to our departure made him overcome every difficulty in the way of such an undertaking in Kamtschatka. It would have been an injustice in me not to have supported and contributed by all the means in my power to its completion; and as I gave them not only workmen, but also such materials as we had on board the ship, we had the satisfaction of seeing it entirely completed previous to our departure. A deep ditch surrounded the whole, and, in order to secure it against any accidental injury, it was inclosed in a high paling, the door of which was to be kept constantly locked, and the key to remain in the hands of the governor of St. Peter and St. Paul.

The Japanese, who, in the preceding autumn, had been wrecked on one of the Kurile islands, and who were conducted by a priest named Werechtschagin, who is since dead, to St. Peter and St. Paul, were no longer here. They all went away privately in their own boat which they had saved from the wreck,

and although an armed Baidar was immediately sent after them, it could not overtake them. This daring enterprize, which, however, it is to be hoped proved successful to them, is not only remarkable on account of the extraordinary courage requisite to such an undertaking in a leaky, open boat, without any supply of water or other provisions than a little rice; but for the extreme cunning employed to remove every suspicion of their intended escape, and thereby prevent any particular attention being paid to them. They had frequently requested M. Von Resanoff to allow them to return to their country in their own boat, which they proposed to repair themselves for that purpose; but he had always rejected their request, on the ground that he could not accede to it without the emperor's permission. During their stay in Kamtschatka they gave so many proofs of their skill, activity, and industry, that M. Von Resanoff intended at first to have sent them to Kodiack, where they might have been very useful; but it was afterwards determined to establish them in Werchnoy Kamtschatsk, a resolution which was notified to them, when they appeared not only perfectly resigned to their fate, but even pleased with the prospect that was held out to them. They each received the quantity of clothes sufficient to last them their journey, and a portion of rice; and the governor provided them with tea, and gave them some money. The day of their departure was fixed, and some of them requested permission to be baptized, saying, that since it was their lot to live in Russia without any chance of ever returning to their own country, it was much better for them to embrace the Christian religion. This permission was joyfully granted, and a day appointed for the ceremony of their baptism: so that no one could possibly entertain the least suspicion of their intended

evasion, or if even they had given rise to such a suspicion, the undertaking would have been deemed perfectly impracticable. They ventured it however: the evening before their departure they were out fishing, and returned at sun-set as usual; they hauled their boat aground and retired to rest, but the next morning they were missed, and it appeared to every one perfectly inconceivable that seven persons should venture to sea without any supply of water; and probably they did not know that in almost all the Kurile islands, except in Poromuschir and Onnekotan, there is none to be met with: nor had they taken any small cask or other kind of vessel with them capable of containing sufficient water even for a few days. Let us, however, hope that they reached their country in safety, for their courage in venturing upon such an expedition certainly merits the most successful issue *.

Iwashkin is a name too well known from Cook's and La Perouse's voyage to let me fear being irksome to the reader by devoting a few words to this unfortunate man, who has reached a considerable age in Kamtschatka. He is now (1805) eighty-six years old. It was not until the present emperor ascended the throne that he obtained his liberty, of which, in the first moments of his joy, he was about to avail himself and return to his country. The emperor, at the same time, assigned a sum of money to cover his travelling expences; but he was soon unable to make up his mind to the journey. At one time he

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* Lieutenant Chwostoff, on his expedition to Aniwa bay, heard of their safe arrival.

expressed a lively wish to return with us to St. Petersburg, but almost immediately altered his resolution; and, indeed, it is not likely that he would survive so long a journey either by sea or by land. He now lives in the vicinity of Werchnoy Kamtschatsk, where the emperor's humanity, and the kindness of the governor, enable him to pass the remainder of his life in a state of indolent repose.

His banishment was occasioned by a report of his being concerned in a conspiracy against the life of the empress Elizabeth: he was deprived of his rank and nobility, put in chains and sent to Siberia. Iwaschkin does not deny having been a rough violent man; but even now, he most solemnly maintains that he never had the smallest share in the pretended conspiracy. He has since been blamed for having in some measure oppressed the Jakutes, whom he was directed to superintend, and for which he was sent to Kamtschatka: and he is likewise accused of having murdered a man in the heat of his passion, which is said to be the reason why the Empress Catharine would not grant him his pardon, notwithstanding that the terms in which he is mentioned in Cook's voyage are such as would not fail to meet with attention in Russia.

I cannot omit giving also some little account of the family of Werestschagin, whom the reader will remember to have been spoken of in Cook's and La Perouse's voyage. Although of Kamtschadale origin, both brothers have been a great honour to their profession. The eldest of these worthy priests, who obtained the esteem of the English in so extraordinary a degree, and of whom Captain King speaks repeatedly in terms of the

warmest praise, died soon after the departure of the Resolution and Discovery. His brother followed in his situation, which he occupied for a space of twenty years, to the satisfaction of every one. On our first arrival in Kamtschatka he was gone on a voyage of conversion to the Kuriles, and he died immediately after his return; so that I had no opportunity of becoming acquainted with him, but I visited his widow, who perfectly remembered the English and French ships. Her son, who was sexton in St. Peter and St. Paul, had the misfortune to be drowned in the river Awatscha during our absence: and there is still one of the family living, who fills the same office of sexton in Werchnoy Kamtschatsk. The village of Paratunka, where the family of Werechtschagin resided, and which has become, in some measure, celebrated by the mention made of it in Cook's voyage, is now inhabited only by bears. In the year 1779 there were still thirty-six persons resident there; but during the last epidemic complaint, in the years 1800 and 1801, they all died. In 1760 the village contained three hundred and sixty inhabitants.

On Friday the 4th October we had got every thing on board, and the ship was in perfect readiness for sea. At four in the morning I warped her into the bay, the wind being fair for us to sail, and I resolved upon taking my departure that same evening. Our worthy hosts dined with us on the last day of our stay here, and our separation from these good people, who had heaped every sort of kindness upon us, could not but be very affecting to us all. It was particularly painful to take leave of young Koscheleff; and we all lamented both him and his excellent brother. We were forced to leave behind us

men of the finest feelings and strictest honour, in a country where they neither estimate the one nor the other; far from their friends and relations; surrounded by people wholly unworthy of them, and whose only study was to embitter their days, to injure their reputation, and render them an object of suspicion to the world. I would gladly have taken the youngest brother with us, for, as he was beloved by every one on board, we all wished him to return with us to Kronstadt, but the governor could not altogether venture to grant him permission to accompany us; and this separation would have been too painful to him, his brother being almost his only companion, and in whom he would have lost an useful assistant in his official capacity.

At two in the afternoon we weighed anchor. The sky had become cloudy since noon, and it began to snow; but as every object in the bay was perfectly visible, and I was anxious not to lose the fair wind, I wished to get to sea before the weather should be worse; scarcely, however, had we secured the anchor and set our top-sails, when the snow fell so thick that we could not distinguish the surrounding objects. The only point absolutely necessary for us to see in order not to get too near the reef that lies opposite to Rakoweina bay, now at no great distance from us, was still discernible through the mist; but even this soon disappeared. Conceiving, however, that I had passed the reef, I continued my course, under top-sails, towards the entrance of the bay, when the ship suddenly struck, and I was made sensible, though rather late, that it was venturing too much to endeavour to sail out of the bay under such unfavourable circumstances. This accident was attended with no other consequences than to

prolong our stay here for a few days: the next afternoon, after unrigging the ship, carrying out our anchor, and starting about fifty tons of water, we got the ship off without her having sustained the slightest injury; for the bay was perfectly unruffled, notwithstanding the wind blew pretty fresh. Young Koscheleff was just on the point of quitting St. Peter and St. Paul when he learned the accident that had befallen us; and although it was not a little dangerous to delay his journey to Nischney-Kamtschatsk on account of the lateness of the season, (for the winter had already commenced), yet this consideration did not deter him one moment from putting off his return, and coming immediately on board. He sent some Baidars with fifty soldiers to our assistance, who were of great service to us in getting the ship off; and he took the most effectual measure in St. Peter and St. Paul for our assistance, in refilling the water-casks, and in two days we again got the ship in readiness for sea. On the 9th October, at six in the morning, we sailed with a fresh N. N. W. breeze and clear weather out of Awatscha bay: precisely on the same day, on which, twenty-six years before, the Resolution and Discovery sailed from hence on a similar destination, namely Macao.

Immediately on our arrival at St. Peter and St. Paul I sent the chronometers on shore to the governor's house, behind which is an open space where Dr. Horner could every day take the necessary altitudes to ascertain their rate, without any fear of disturbance. On our departure on the 4th October the rate of the four watches was,

No. 128 lost daily	— 21″ 62
Pennington's watch gained daily . .	+ 24″ 50

But by comparing them we found so evident an alteration in their rate that we determined to give them a new one, and they were both set at + 21″ and — 21″*. This change was made on the 12th October, while we were still in sight of land, on which day No. 128 was too fast for mean time at Greenwich by five hours 9′ 33″; Pennington's watch too slow by one hour 20′ 11″ 5. Our frequent observations at sea, and the trifling error of the two time-pieces on our arrival at Macao, convinced us of the new rate at which we had set them being tolerably correct.

From a number of meridian and circum-meridian altitudes taken by Dr. Horner during our triple stay in the harbour of St. Peter and St. Paul, the northern latitude of the Koschka, that is to say, of the neck of land which forms the north side of the harbour is . . . . . = 53° 00′ 10″

The west longitude, according to several lunar distances measured by Dr. Horner and myself, is 201° 12′ 15″

The true longitude, as calculated by Captain King and the astronomer Bailey, is . . 201° 16′ 29″ 5

The variation of the needle in the harbour of St. Peter and St. Paul was ascertained by five compasses, pointed towards three different objects, to be in the mean 5° 20′ east, and the

* The small watch by Arnold, No. 1856, stopped suddenly during our stay at St. Peter and St. Paul.

azimuth of each of those three objects was determined by their distance from the sun.

In Awatscha bay the variation of the needle was found by observations on board the ship, by means of azimuths and amplitudes of the sun to be in the mean = 5° 39′ 00″ east.

As the dipping-needle had suffered so much during the typhon on the 4th October, 1804, as to become perfectly unserviceable, as I have already mentioned, we made no calculations of the dip of the needle, except during our first stay in Kamtschatka. In order to secure the dip against the influence which the unequal weight of the two extremities of the needle must necessarily have upon it, the four small balance-balls were taken from the axis of the needle, and its dip repeatedly tried. The mean of our observations was,

The part turned to the east 46° 20′
The part turned to the west 62° 13′ } 54° 16′

After this the pole of the needle was turned round by means of a powerful magnet—the dips were,

The part turned to the east 66° 28′
The part turned to the west 79° 10′ } 72° 49′

By combining the results of these two calculations, the true northern dip of the needle will be found to be

$$\frac{72° 49′ + 54° 16′}{2} = 63° 32′.$$

Afterwards the moments of the needle were so adjusted that,

in every situation, it gave this same dip. Captain King found the northern inclination 63° 5′ 00″.

The mean of our observations in St. Peter and St. Paul gave us the time of high-water at full and new moon four hours 20′. The greatest difference in the rise of the water was six feet. The winds have a varying influence over the time of the ebb and flood, as well as on the rise of the water; a southerly wind driving the water into the bay, while the north winds prevent its rising.

CHAPTER VIII.

ON THE ACTUAL STATE OF KAMTSCHATKA.

Introduction—Description of the Harbour of St. Peter and St. Paul, and of the Country—Fertility of the Soil in the Interior of Kamtschatka—Reason of the great Scarcity of national Production—Short Sketch of the Manners of the Russians in Kamtschatka—They are destitute of every Thing, even of Bread and Salt—The Nadeshda supplies Kamtschatka with Salt for a Twelvemonth—Necessity of sending some skilful Physicians there—Beneficial Changes with respect to the Officers of Kamtschatka—Want of building Materials in the Vicinity of St. Peter and St. Paul—Wretchedness of the Houses there—Little Attention paid to Cultivation—Reason of this—Scarcity of Women, and ill Effects of it—Description of the Kamtschadales—Their Houses—Administration of Justice—Duties of the Tayon and Jessaul—Tribute exacted from them—Mode in which the Merchants have hitherto conducted their Affairs in Kamtschatka—New Regulations of the Governor respecting Trade for the Benefit of the Inhabitants—Necessity of enforcing them as much as possible—Indispensable Services performed by the Kamtschadales.

As I visited Kamtschatka three times in the course of the years 1804 and 1805, and remained there on the whole upwards of three months, some description of this country will very naturally be expected from me. I shall, however, confine myself to a representation of the actual state of Kamtschatka, as the country has been so frequently and so particularly described. The works of Krascheninikoff and Stetter are sufficiently known, and translated into nearly every language; and in Cook's voyage are two chapters by Captain King, which

render any farther account unnecessary. It is my intention, therefore, most carefully to avoid every repetition, referring myself entirely to those who have gone before me; and with the exception of some general remarks upon what Kamtschatka now is, and what it might be made, merely to mention the most important changes that have taken place during the last thirty years. I can assure those who may accuse me of too great a partiality for this country, so much and so unjustly decried, that I advance nothing, nor state a single fact, of which I was not either an eye-witness, or that I have not drawn from a most authentic source; and those who find my account too dilated, and consider a great deal of what I say as too unimportant, must content themselves with the excuse, that my remarks are concerning an object which had long engaged my attention before I undertook this voyage; an object of the greatest importance to Russia and to humanity in general, and certainly deserving to be considered with all the attention, and, if necessary, with all the freedom which under the reign of Alexander is so much the privilege of every one. This consideration renders it my duty to express openly my opinion upon all that I have seen; but particularly on the condition of the Kamtschadales, and the treatment they experience, as well as on the measures which the government had, with the best possible consequences, already adopted for the improvement of Kamtschatka, or that still seemed wanting to that improvement. Should I be accused of too much enthusiasm in my expectations from Kamtschatka, this is at least a pardonable error: should my description produce the effect of rendering the future life of the inhabitants more comfortable, and contribute to lighten the stay of those whom duty obliges to reside there, I shall submit

patiently to any criticism. The only thing for which I request indulgence is the apparent want of order in my remarks; and on so fertile a subject it was extremely difficult to preserve any.

The first prospect of St. Peter and St. Paul might raise in the mind of a person newly arrived, and ignorant of the history of this Russian establishment, the idea of its being a colony founded a few years before, but recently abandoned. Nothing is visible here that could at all persuade any one of its being inhabited by civilized people: not only Awatscha bay, but the three adjoining ones are entirely forlorn and uninhabited; nor is the beautiful harbour of St. Peter and St. Paul enlivened by a single boat. Instead of this the shores are strewed with stinking fish, among which a number of half starved dogs are seen wallowing and contending for possession. Two baidars belonging to the port, and hauled on shore at a low sandy point of land, would be an additional proof of the infancy of this colony; if, at the same time, you did not perceive the wreck of a three-masted ship, bearing evident marks of having been in its present condition for some years*. This immediately brings to mind the celebrated Behring, who, seventy years before, commenced his voyage of discovery from this port: but not only

* The Slawa Rossii, the ship which Captain Billing, and, after him, the present Vice Admiral Sarytscheff, commanded. On the completion of the voyage the officers were allowed to return by land, and the greater part of the crew were removed to Ochotsk. The Slawa Rossii soon afterwards foundered in the harbour of St. Peter and St. Paul, from want of care. She was on her arrival in admirable condition, and perfectly in a state to have undertaken the voyage to Cronstadt. The cutter, which accompanied Billing on his expedition, was used whilst we were there as a packet between Kamtschatka and Ochotsk.

the two baidars, but the sinking of the ship itself, are too clear a proof that the nautical concerns of this colony are still in a state of infancy.

It is perfectly in vain that you look about, upon landing, for even one well built house: in vain does the eye seek a road, or even a well beaten path, along which a person may walk in safety to the town: no garden, no meadow, no plantation or inclosure of any kind indicative of the least cultivation; the only things to be perceived are a few huts, mostly in a decayed state, Balagans and Jurten. Instead of bridges over the few small brooks that flow from the neighbouring mountains into the valley where the town stands, are merely planks laid across them, and these only passable with the greatest attention. Five or six cows feeding in the vicinity of the houses, and innumerable dogs lying about in holes which they dig as resting-places, and as a shelter against the flies, rendering it, if not impossible, at least extremely dangerous, to walk after dark, are the only objects at St. Peter and St. Paul. As the greater part of the inhabitants are from Sachalin, and are absent during the whole day, you may remain here several hours without meeting a single person; and in the pale, emaciated countenances of those you do at length perceive, it is not easy to recognize the descendants of the heroic Von Rimnik, and of Trebbia.

This, then, is the present miserable condition of the celebrated St. Peter and St. Paul, undoubtedly the most important place in all Kamtschatka; and yet it is upwards of a hundred years since Russia first obtained possession of this province, which might become of infinite importance, if all the advantages it is

capable of affording were derived from it, and which have hitherto been looked upon with contempt. It is merely the great distance of Kamtschatka from the capital of the empire, as well as from any civilized country, and its apparent poverty, that have brought it into such disrepute: even its name is hardly pronounced without a mixture of horror and disgust; it is looked upon as a country in which hunger, cold, poverty, in short every species of misery is concentrated, and condemned to be for ever deprived of all that, in a moral and physical sense, can be gratifying to the human species. The different descriptions of Kamtschatka almost lead to this conclusion; and the verbal accounts of those whom fate has conducted thither, and who returning home after a few years spent there in perfect misery, look back with bitterness upon this devoted country, contribute to strengthen the miserable notions we form upon it. Nor can this be said to be merely prejudice; it is by no means without reason that people consider it as a particularly hard lot to be compelled to pass several years at Kamtschatka in its present condition. There are many wants which a man, no matter how hardened to difficulties, cannot at all satisfy at Kamtschatka, independent of those likely to be experienced by every person of feeling and education: this will clearly appear from the present description.

The great distance ought not, however, to be adduced as an excuse for leaving Kamtschatka in this miserable condition; it is at all events no insurmountable obstacle. Port Jackson, which requires a voyage of at least five months from England, has, notwithstanding its great distance from the mother country, risen in the space of twenty years from nothing to a most flourishing

colony. It is true that the climate of Kamtschatka will bear no comparison with that of New South Wales; but there are many provinces in European Russia that have no advantage in this respect over Kamtschatka, and are, nevertheless, cultivated and inhabited; and it is only in the vicinity of St. Peter and St. Paul where the climate is so particularly unfavourable, the neighbourhood of the sea being the occasion of frequent damp fogs and misty rain; nor is it improbable that corn would not thrive there, as has been maintained, although the attempt has never been made to cultivate it. Those, however, who have resided several years in the interior of the country, concur in the opinion of the climate of the north, but especially of the middle provinces of Kamtschatka, being infinitely superior to the southern parts, particularly near Werchnoy, and on the banks of the Kamtschatka river, where the soil is invariably very fruitful. The length of the winter is no obstacle to cultivation: it reigns equally long in the northern provinces of Russia, and in Siberia, where the vegetation is so extremely rapid, that notwithstanding the shortness of the summer, several species of corn are brought to perfection. In the interior of Kamtschatka many kinds of vegetables are cultivated, and every sort of corn; but I shall shew hereafter the reason why there is not a sufficiency for the use of the inhabitants, and of the military. As to the climate of Kamtschatka, it is not so bad as it is represented: that the frequent fogs prevent any vegetables from coming to perfection is merely an excuse made by the inhabitants in order not to work, their indolence knowing no bounds, the immoderate use of spirits rendering them incapable of every exertion; for the officers who are garrisoned there, and who have laid out gardens for themselves, produce

(with the exception of peas and beans) almost every kind of vegetable necessary for the table, and, indeed, in such quantity, that they were enabled to supply us with a considerable stock. If, therefore, the cultivation of these plants succeeds in two or three gardens, it is very evident that every inhabitant, every soldier, might obtain a supply of cabbages, carrots, and, at any rate, of potatoes for his own use, sufficient in some degree to secure him against the scurvy, so common here in the winter months from the total want of vegetable and animal food. The reason, I conceive, why this is not done is, that they do not begin to cultivate their gardens until the early part of July, so that the seeds do not come to any thing before the end of that month. If the possessor of a garden, or, to speak more correctly, any industrious person, for it is open to every one to cultivate as much land as he pleases, were to begin to till his ground in May, I have no doubt but that he might furnish his table throughout the summer, not only with salads, radishes, cucumbers, &c. but also with cabbage, which they obstinately refuse to plant, and peas and beans in perfection. At an ostrog or small village in Awatscha, near the mouth of the river of that name, I saw in the month of June a small garden in blossom, at the very same time that they were maintaining at St. Peter and St. Paul that it was still too early to plant; because they have never been in the habit of doing so before the month of July. This proof demonstrates the incorrectness of the system. I passed all the summer months in Kamtschatka during the two years of my absence; that is to say, the whole of June, a part of July, and the whole of August and September, and can affirm with confidence, that in these four months there are just as many pleasant, cheerful days, as in any other place under the same

latitude. We were certainly not always free from fog, but there are few northern countries that are so. The month of June was as beautiful as it can possibly be in the most favoured climate; and yet they consider this month as too early to till the land, although the snow has at that time quite disappeared from the mountains, and the earth is thoroughly thawed. Nothing, in short, but a most rooted prejudice, from which I cannot even exempt the officers of the garrison, although they deserve the praise of having set a most admirable example in the arrangement of their gardens, can prevent the people from working in their gardens in this month. In the middle of May, says Captain King in Cook's third voyage*, a quantity of wild garlic, cellery, and nettles, were gathered for the crew: and if in the middle of May so much is already produced without any cultivation at all, I think I do not assert too much in saying they ought to begin to lay out their gardens in this month. It may be difficult to overcome indolence and prejudices that have taken such deep root, but it is certainly not impossible; and people may live just as well in Kamtschatka as any where else, and even better and cheaper than in many of the provinces of Russia, provided the government adopt very different measures from those which have been hitherto in force. Nor will this even be sufficient; the most important consequences depend upon the punctual and conscientious execution of the plans which it may devise for the improvement of Kamtschatka. To effect this is certainly no easy matter, considering the great distance, and ought only to be confided to very trusty persons,

* The Resolution and Discovery arrived at Kamtschatka on the 28th April, new style.

less attentive to their own interest than to the good they may produce to the public.

Some years ago, when I only knew Kamtschatka partly from printed, but chiefly from verbal accounts, often more to be depended upon than the former, I gave in writing my opinion upon this country. I have now seen it myself, and acknowledge, without being at all biassed by any partiality for my former opinion, that I find it perfectly correct. Unfortunately too, a part of what I predicted, even at that time, the decrease of the inhabitants, has really taken place: almost all of them having died during the years 1800 and 1801 of an epidemic disorder.

Before I speak of the Kamtschatdales, I think it may not be superfluous to say something on the mode of living of the Russians in Kamtschatka, which will account for the great mortality that reigns there. There is scarcely any difference between the life of the officer, the merchant, the priest, or the soldier: the one may, indeed, possess more money than the other; but as money is not held here in any estimation, this naturally produces a great equality in their rank, at least in their mode of living. Nor does this prejudice the discipline of the troops: the soldier feels less than any one the distress that reigns in Kamtschatka, not only because the Russian soldier is accustomed from his infancy to forego the comforts of life; and he only then feels the hardship of his lot when he does not meet with that indulgence which is due from the officer to him, or experiences any injustice in the service; but because the soldiery there have an opportunity of enriching themselves

which is not open to the officers, and there are at this time many who possess several houses. In the winter, for instance, when they are not upon duty, they are allowed to go sable-hunting, and a soldier will very frequently earn from three to five hundred roubles in the course of the season; but as most of them are unmarried, and can purchase nothing but spirits for their money, their earnings are as speedily squandered. There can be no doubt that the married men, at least, would make a better use of their money if any opportunity were afforded them; for a great change was very soon observable in the dress of the people of St. Peter and St. Paul, especially of the women, after the arrival of the Nadeshda. How easy would it be to supply Kamtschatka with every necessary, by sending a ship there annually direct from any Russian European port? the prices of every article would not only fall several hundreds per cent., in the same manner as spirits fell shortly after our arrival from twenty to six roubles the *stof*, and sugar from seven roubles to one and a half the pound; but even the north-eastern part of Siberia might be supplied at a much lower price with a variety of foreign goods, from St. Peter and St. Paul itself, than it can by an overland carriage across the whole of Russia and Siberia. It may serve as a proof of what has been here asserted, that several articles put on board the Nadeshda by the American company were sent from thence to Ochotsk for sale. The difficulty of conveyance from the European provinces of Russia to Ochotsk, and from thence to Kamtschatka, has hitherto been assigned as the reason why the inhabitants of this province are not only suffered to want all the comforts of life, but even many of the necessaries. Gin is the only article which the merchants never suffer to be wanted. The propensity to strong liquors is

greater there than at other places, and is besides more pardonable, as the merchants endeavour by every means to keep it up; and a bout of drinking with some of their companions (which seldom is done at less expence than fifty roubles) is the only means which they have of disposing of their troublesome, but hard-earned, winnings. This is the case with all people devoid of education; but particularly with the soldiery. The seamen on board of the Revolution and Discovery evinced a similar disposition, but without being allowed to follow their inclination, as appears from the following extract from Captain King's journal, in the third volume of Cook's Voyages, page 368 of the original edition: "Our sailors brought a great number of furs with them from the coast of America, and were not less astonished than delighted at the quantity of silver the merchants paid down for them; but on finding neither gin-shops to resort to, nor tobacco, nor any thing else that they cared for to be had for money, the roubles soon became troublesome companions, and I often observed them kicking them about the deck."

Bread and salt are two articles invariably possessed by the poorest beggar in Europe; but in Kamtschatka, where, owing to the increased number of the military, the consumption of bread is very considerable, and the conveyance is so very difficult and expensive, the soldier obtains only half his ration in flour, and the other half in money, yet never to an amount sufficient to enable him to purchase it: for the merchant of Kamtschatka will not import flour, because it is frequently injured during the journey, by which means the cost is sacrificed, whilst, on the contrary, gin is always sure to produce a clear and immediate profit; and flour has no established price at Kamts-

chatka, although it is generally estimated at ten roubles the pud. The soldier's pay is never sufficient to purchase it at this rate, and it would be infinitely better for him if he received his flour in kind: nor can I imagine that there would ever be a superfluity of this article in Kamtschatka, not only because the soldier does not actually receive his customary schtschy and meat, but also because the flour is very much injured by the length of the overland conveyance in leathern skins, and the full delivery can never be baked. This is likewise the case with grits. Fish they never experience the want of, and during the summer season it affords them a wholesome and agreeable nourishment; but in winter they are reduced to eat it in a dried state (in which condition it is called jukula in Kamtschatka), and without any thing to relish it: and such diet, when long continued, cannot but be extremely injurious to health.

The scarcity of salt is still greater than that of bread; on our arrival a few pounds of salt were considered as a valuable present, and great as was their partiality for spirits, those who brought us fish, berries, or game, were infinitely more thankful for a little of the former, than when we rewarded their labours with gin, which I scarcely ever gave to them. If there were no want of salt, and it were sold at a just and reasonable price, the inhabitants would not be compelled to eat their fish in a dried state: salt fish would at any rate prove an agreeable change; and how many other occasions are there for this most necessary article? Every soldier receives a pound of salt monthly, but the Kamtschadale gets none. In the vicinity of St. Peter and St. Paul there were two salt pans, which once produced a

sufficiency for the consumption of the whole of Kamtschatka, but they have both been suffered to go to ruin for some years past: probably because the conveyance of the kettles, and other necessary articles, by land, was considered as too difficult.

In this respect the arrival of the Nadeshda at Kamtschatka proved a real benefit. It may be remembered that in an earlier part of my journal I mentioned, that upon our departure from Japan the government there presented the crew of my ship with fifty thousand pounds of salt, and this, with the exception of about five thousand pounds which I kept for the consumption on board, was left at Kamtschatka, and divided in different lots by the governor, in such a manner as that every inhabitant was amply provided for three years.

I cannot omit this opportunity of giving that praise to my crew, which is due to them for their great disinterestedness and real feeling for the fate of their brothers in Kamtschatka. When I announced to them, on our arrival there, that all the salt which we had taken on board at Japan was a present to them alone, in which the officers had no share; and told them, at the same time, that I expected, notwithstanding the high price it bore in Kamtschatka afforded a most advantageous opportunity of selling it, that they would not complain if I made over the whole quantity to the governor, the only person competent to make an equal distribution of it among the inhabitants of Kamtschatka, who, as they were perfectly aware, were in absolute want of this most necessary article of consumption; and that they must leave it entirely to the government to indemnify them for it, not one of them made the

slightest objection. They almost all remarked that salt was nowhere more wanting than in Kamtschatka, where they would long have cause to remember the Nadeshda, if it were only on account of this present; and that it was quite indifferent to them whether the every obtained any thing for it, not having reckoned upon receiving it themselves. Besides this salt, I left about three thousand pounds of rice in Kamtschatka.

As there is so great a scarcity of salt and bread in this country, it is natural to conclude that the deficiency of articles of less immediate necessity must be still greater; but they never are in want of spirits, as I have already observed, and very seldom of tea and sugar. I will just mention here the price of those goods which are imported into Kamtschatka from Ochotsk, although, even at this enormous expence, they are not always to be obtained. On our arrival a pailful of very bad gin cost one hundred and sixty roubles, and a stof twenty. This price was established by the actual governor: for previous to his time the merchants, whose avarice is unbounded, and who were well assured that the propensity to gin-drinking would not be diminished by any exorbitance of price, had already increased it to more than three hundred roubles the pailful*. The price of sugar is usually from four to five roubles the pound, but often rises to seven; tobacco five roubles; butter and salt one

* At my suggestion a thousand pailsful of strong and pure spirit were purchased at Revel, and shipped for Kamtschatka and Kodiak. This, if mixed half and half with water, was sufficiently strong to drink. At Revel the price of the gin was four roubles the pailful, and it was sold at Kamtschatka for forty-eight: yet this price was found so extremely low, that the whole quantity was bought up in a very short time.

and one and a half roubles the pound. Soap, candles, &c. are seldom to be had under two roubles the pound. Many other necessary articles of housekeeping are in a like proportion; but it is seldom that even the greatest necessaries are to be procured. Rum, brandy, wine, coffee, spices, vinegar, mustard, oil, rice, flour, butter, and other similar articles, which are to be met with in the poorest villages of Russia, are never imported for sale; neither are any of those necessary for clothing, with the exception of some very coarse linen, silk handkerchiefs, and blue nankeen. The officers procure from Irkutsk the cloth and other things requisite for their uniforms, but always at a very expensive rate. Black bread, and fish dressed without sauce or spice, without salt, vinegar, or pepper, are the only provisions which the officers, as well as the men, are able, for a constancy, to set upon their tables. There is nothing a hardy soldier will not endure so long as he is in good health; but if he falls sick, to what a wretched, miserable, helpless condition is he reduced! No physician, no medicine, no reviving draught, nor strengthening diet, are to be procured at St. Peter and St. Paul; he cannot even struggle against death, which seizes him in this most pitiful condition. Mention is made in Cook's third voyage of the state of the garrison and hospital of St. Peter and St. Paul. "On our first arrival," says Captain King, "we found the Russian hospital, which is near the town of St. Peter and St. Paul, in a condition truly deplorable. All the soldiers were more or less affected by the scurvy, and a great many in the last stage of that disorder. The rest of the Russian inhabitants were also in the same condition; and we particularly remarked that our friend, the serjeant, by making too free with the spirits we gave him, had brought on himself, in a few days,

some of the most alarming symptoms of that malady. In this lamentable state Captain Clarke put them all under the care of our surgeons, and ordered a supply of sour-crout and malt, for wort, to be furnished for their use. It was astonishing to observe the alteration in the figures of almost every person we met on our return from Bolckeretsk; and I was informed by our surgeons, that they attributed their speedy recovery principally to the effects of the sweet wort." Cook's third Voyage, page 231, vol. 3. original edition in quarto.

It is not, indeed, quite so bad at present. The pains and paternal care of General Koscheleff have reduced the number of sick from what it usually is. We found only three men in the hospital, one of whom had a wen on his eye, another was wounded in the foot: the third man's illness was of little consequence, yet most of the inhabitants suffer from scurvy throughout the winter. Of five people whom I had brought with me as passengers to Kamtschatka, and who had been in perfect health during the whole voyage, I found, on my return from Japan, only one in good health, the rest having suffered very much during the winter from this disorder. At present, indeed, a considerable quantity of medicine is sent to Kamtschatka; and although I have said that there are neither physician nor medicine there, my meaning is, that it is only in cases of absolute necessity that even the wealthy inhabitants can have recourse to medical assistance. What then is left for the poor people? They will long remember Dr. Espenberg, who, during our residence, had, on three different occasions, an opportunity of being of infinite service. He likewise supplied the under surgeon of St. Peter and St. Paul with

some necessary medicines from the ship, which the latter, however, was unable to make use of, probably from being unacquainted with their properties. The battalion in garrison here had a skilful surgeon attached to it; but as his residence was at the town of Nishney, he could only be of use there. In the other towns of Kamtschatka there are no head surgeons: the one resident at St. Peter and St. Paul was a very indifferent person, as well in regard to his professional skill as to his general character; but this cannot be wondered at, nor can it be expected that any skilful surgeon will exchange a comfortable situation for one that is truly miserable. All officers and persons in employ who are sent to Kamtschatka have to perform a journey of fifteen thousand wersts, the greater part of which is extremely difficult, and that from Irkutsk to Ochotsk not only so but very dangerous. As those goods which are the easiest of conveyance rise one hundred per cent merely on account of the difficulties of transport, it is clear, that to every one who wishes to bring any thing with him to Kamtschatka, they become infinitely dearer than their real value. A poor officer who goes there for the first time, takes only such things as are absolutely necessary, and if he remains even but a few years, there must necessarily be a considerable deficit in his baggage. In short, no person will willingly go to Kamtschatka; and every one who has any means whatever of avoiding it will employ all his interest for this purpose: thus it happens that none but officers whose conduct is deserving of punishment are sent there; a plan that has, indeed, been recently laid aside, as Kamtschatka is by no means a place where any officer of bad conduct is likely to amend. He there usually becomes worse, and frequently proves a tyrant, and oppressor of the poor

inhabitants. In order to attract good officers to Kamtschatka, where they are perhaps more necessary that at any other place, because they must contribute by their exertions to effect the good intentions of the government, which can never be carried into execution without their active assistance, the emperor now, at the suggestion of the governor, offers double pay to every one who is sent to Kamtschatka during the whole time of his residence there, and, after five years unimpeachable service, an advance more than he would otherwise be entitled to, provided he still chooses to remain, or if he wishes to be removed, he is permitted to choose the regiment to which he will be appointed. This salutary measure will prove of the greatest advantage to Kamtschatka: a worthless officer who was sent for an indefinite term thither, and who saw no probability of ever quitting the country, soon lost the little remains of honourable feeling which actuated him; and the only regular checks upon his conduct were so many marks of disgrace inflicted upon him, which involved his chief in constant trouble, while they cast an unmerited stigma on the character of his country.

Nearly the same thing may be said of the medical men, although not to the same extent. One physician, however, is undoubtedly insufficient for Kamtschatka, and it is therefore necessary, independent of the under surgeons, to place two or three skilful men in the different districts of Kamtschatka, who, besides their medical knowledge, should possess an acquaintance with the different branches of natural history, and particularly with those which are more nearly allied to their own profession. Without being exactly a skilful botanist, mineralogist, or che-

mist, any active and enquiring mind might, with the least degree of knowledge in his favourite study, easily make many discoveries which would not fail to prove useful both in a political and a scientific point of view: and the important result would be, that the Kamtschadales as well as the Russians would be certain of assistance, if the physicians constantly travelled up and down the country. I acknowledge that such as are compelled to live at least four or five years in Kamtschatka are deserving of a better remuneration than those physicians who reside in the European provinces of the empire; but when the preservation of health and the advancement of knowledge become the objects of their exertions, a few thousand roubles ought not to be taken into consideration. These medical men should proceed thither by water, not only because they would then be easily enabled to provide themselves with clothes, books, furniture, scientific instruments, and other more or less necessary articles, which, indeed, might elsewhere be considered as luxuries, but in Kamtschatka are necessary to the preservation of health, for the whole time of their stay there, which in a land journey they could not do; but also because the voyage by sea, either round Cape Horn or the Cape of Good Hope, during which they would touch at many countries highly interesting to a naturalist, would, of itself, possess infinite charms to any active and enquiring spirit, and would render it more easy to find persons willing to undertake it. I have elsewhere remarked, that, at the suggestion of the governor, some thousand roubles were collected for the purpose of constructing a hospital at Malki, a small village two hundred wersts from St. Peter and St. Paul, where there are some mineral springs. Unless, however, some skilful medical man be placed at the head of such an

establishment, and provided with the necessary means of assistance, which are hitherto not to be found there, it is impossible for this charitable institution to obtain its end.

After this digression I again return to the manners of the Russians resident in Kamtschatka. I have already shewn that the inhabitants of Kamtschatka experience a want of the most necessary articles; that their table is most wretchedly provided; and that in the interior of their houses their poverty, or rather misery, is not less apparent. In St. Peter and St. Paul there were only two houses at all better than the rest, one of which was inhabited by Major Krupskoi, the commandant of the fort, and the other by two artillery officers. Both of these houses, one of them of considerable size, consisted of very habitable rooms, kitchens, store-rooms, &c. and both, particularly that of the major, might, with very little alteration and decent furniture, be rendered very tolerable dwellings. Although, even in the condition in which we saw them, they were the very ornament of Kamtschatka, the furniture of the anti-room consisted merely of a wooden stool, a table, and two or three broken chairs. There was neither earthenware nor porcelain table-service: no glasses, decanters, nor any thing of a similar nature: two or three tea-cups, one glass, a few broken knives and forks, and some pewter spoons, constituted the wealth of these good people, who were both married. But what most of all distressed me was the condition of their windows: they had not double sashes, which, in a cold climate, are as necessary to health as to comfort; but such even as they had were in a very wretched condition. The panes were of glass, but notwithstanding their extreme smallness they were all of them broken, and made of pieces fitted together. They afforded no protection against the

snow and frost; and I could not, without feelings of commiseration, behold the children, who in no part of the world are brought up so wretchedly as here. Milk, when the parents are sufficiently rich to keep a cow (and few are in this condition) is the only thing with which they are nourished. Jukula and coarse black bread is hard food for a child from twelve to eighteen months old, and must, in case of any obstruction, contribute to terminate their existence.

The houses of the other inhabitants are invariably ill built, and all of so little elevation that, during the winter, they are entirely covered with snow. From the door a path-way is cut through the snow, and this, as it forms a thick wall round the house, may indeed contribute to the warmth, but must necessarily occasion a very unhealthy atmosphere within them, as it rises considerably above the house, and prevents the possibility of introducing any ventilator. They have therefore no fresh air throughout the winter in any of the rooms; and it is to this, and to the badness of their provisions, that I, in a great measure, ascribe the pallid hue of all the inhabitants, even of the youngest females.

The construction of a house at St. Peter and St. Paul is very expensive, no timber fit for the purpose growing in the neighbourhood of the town, and the people being obliged to bring it from the interior. When any public building is to be erected, thirty or forty soldiers are dispatched under the command of an officer, and are employed for several weeks, and at imminent risk, in floating the felled timber down the rapid rivers. In this manner the whole garrison of Kamtschatka had been oc-

cupied during two years in building some barracks for ten or twelve men, nor were they yet completed; and the church on which they have been several years employed is in the same predicament, and, in all probability, they will give up every thought of finishing it with timber, and have recourse to brick, the only proper material for such an edifice. If the vicinity of St. Peter and St. Paul produced any abundance of timber, it would certainly be wrong to make use of stone for their buildings; but since, as I have already observed, it can only be obtained with great difficulty and danger, and is never preserved a sufficient time to become perfectly seasoned, the natural consequence is, that such a house, notwithstanding the vast expence of building it, generally falls to pieces in a few years. The agent of the American company at St. Peter and St. Paul had constructed a small house for the reception of the goods which he expected by our ship, containing only a few rooms, and altogether not much above forty feet long, which cost him upwards of ten thousand roubles. I therefore think it would be much better to build houses of bricks, as Tareina abounds with an excellent clay, which is used at St. Peter and St. Paul for the construction of ovens. But as the poor inhabitants have no other vessels than baidars, which are of a very small burden, and with any thing of a stiff breeze are not able, even in the bay, to keep the sea, the conveyance of the little clay necessary for the construction merely of an oven is attended with great difficulty and loss of time. A good decked boat of fifteen or twenty tons, requiring only three or four men to navigate it, would in two days convey a greater lading than three baidars, each manned with ten soldiers, are able to procure in three months: besides this, the baidars meet with frequent accidents.

It would be much better also to make the bricks in the bay of Tareina, where there is plenty of wood close down to the sea-side, than to convey, as they do at present, the clay to St. Peter and St. Paul, in order to be made into bricks there, as the wood necessary to burn them must all be dragged from the mountains with considerable trouble. The timber requisite for the construction of a stone house might very easily be brought from America, where, as is well known, the finest trees are in the most profuse abundance, as well on board of the company's return ships, which, with the exception of a few furs, occupying but very little space, generally come back in ballast; or, if this plan be not adopted, by sending a few ships expressly from St. Peter and St. Paul to America. It might likewise be brought from Nishney-Kamtschatka; and it is not improbable, that timber would be found in one or other of the many bays on the west coast of Kamtschatka hitherto unexplored. The plan of building houses of bricks is not an idea of mine alone, but was that likewise of several persons with whom I conversed on the subject. It is ridiculous to speak of it as dangerous on account of the earthquakes; for, in the first place, there never has been any earthquake known in the vicinity of St. Peter and St. Paul of sufficient power to have threatened the destruction of any stone house; and secondly, it is not proposed to build palaces of several stories, but merely small houses of one. A comfortable and healthy dwelling-house, a moderately well supplied table, and many other things which elsewhere, perhaps, might be considered as luxuries, are, much as the hardy soldier pretends to despise them, so many articles of absolute necessity at Kamtschatka: and the per-

son who determines to pass his whole life, or even several years of it, in this distant and cold climate, where he must still experience a deficiency of many things, is certainly entitled to expect some remuneration. Humanity demands that all should be done that can in any way contribute to the preservation of health; and it is the total absence of every thing either necessary or agreeable that deters people from going to Kamtschatka.

Although every meal at St. Peter and St. Paul proves the poverty of the place, with a little assistance it would not be impossible to procure a very good table. Kamtschatka even possesses an abundance of delicacies, such as are not easily to be procured at several other places. Beef is particularly good there, as Captain King has already observed. The oxen which, through the kindness of the governor, we obtained both on our departure for Japan and China, were, although some of them were very old, more white and tender than younger cattle are generally found to be. Nor is this to be wondered at, the meadows which, even in the vicinity of St. Peter and St. Paul, are covered with the richest pasture, being still better farther inland. It is calculated that, in the whole of Kamtschatka, there are about six hundred head of cattle, which number they ought to endeavour to increase, to enable the military to have a pound of fresh meat at least per week, (with the exception of the four summer months). This would undoubtedly produce the most salutary consequences on the health of the soldiers, and would act as a powerful preventive against the scurvy, under which they almost all labour throughout the winter. If, added to this, all the inhabitants took care to provide themselves with a winter stock of

potatoes, carrots, and sour-crout, (at Werschnoy the cabbage grows full as large as with us, and sour-crout is not only an acknowledged anti-scorbutic, but a national dish of the Russians); if, besides, they curtailed the excessive use of spirits, and the people lived in healthy habitations, I am convinced that the scurvy might be entirely checked. It was considered as impossible to prevent this malady at sea, and a vast number of words have been applied, as the reader of Lord Anson's voyage can well testify, to prove that the greatest caution was insufficient to prevent it, as it originated in the sea air; nevertheless, this dreadful disease is almost extirpated from the ocean, or, at least, merely attended with very trifling consequences, means having been discovered of preventing it even on the longest voyages.

At St. Peter and St. Paul the number of horned cattle amounted to ten cows, and, perhaps, as many young heifers; there was, consequently, no butter, and very little milk. It would be extremely easy to support some hundred head there, as not only close to St. Peter and St. Paul, but on the banks of the Awatscha river, there is plenty of the finest grass, if there were a sufficiency of men to collect a quantity of hay equal to the support of so large a flock during a long winter, independent of the military, who, indeed, constitute the greater part of the inhabitants, and are so much employed in other works. The breeding of hogs is difficult, owing to the scarcity of corn; but it would be easier to have sheep, goats, and poultry, the former requiring nothing but good hay. Although in the vicinity of St. Peter and St. Paul we met with no short delicate grass, there can be no doubt that this species exists in these parts.

Hitherto no one has attempted to breed poultry, because the dogs, which in the summer are allowed to run about and procure their own support, are too dangerous to them: but these should be sent during this season, when they are of no use, to a distant district, and never allowed to come near the village, where they only commit mischief, and frequently tear the young cattle to pieces *. While the present state of poverty lasts, the feeding of poultry would be too expensive, as the inhabitants, who themselves experience a want of corn, would hardly spare any, in however small a proportion, for the support of their fowls. It is true, that in the want of them the people experience one of a nourishing and wholesome food. We brought some fowls from Japan, which I divided amongst the wealthiest of the inhabitants, upon condition that they would allow them to increase as much as possible, and take the greatest care of them.

During our stay at St. Peter and St. Paul we were daily provided, through the kind measures adopted by the governor, with rein-deer, argalis, wild ducks, and geese, a proof that various kinds of food may be had; and hares are said to abound during the winter. The flesh of the rein-deer is excellent, and in no wise inferior to beef: nay, I even preferred it to some of a very good quality, although at first I had a great antipathy to it. My dislike to this I soon overcame, but never could entirely conquer my aversion to that of the seal, which is by

* At Ischiginsk they employ dogs during the summer in dragging boats up the river against the stream; in all probability they might be used for a similar useful purpose in the southern parts of Kamtschatka.

no means despised at Kamtschatka, and although not a very tasty, is not an unwholesome food. This is likewise the case with bear's flesh *. But the flesh of the argali, or wild sheep, is far superior in flavour to any game known in Europe. There is no scarcity of wild ducks and geese, both excellent in their way. In the months of July and August you may procure an hundred of the former in the course of an hour: at this season of the year they shed their feathers, and as they cannot fly, they are easily brought down from the rocks by a long pole with a hook at the end of it. The few Kamtschadales who dwell in the neighbourhood of St. Peter and St. Paul would, on obtaining a just remuneration for their trouble, amply supply the inhabitants with the above-mentioned articles, if they were only provided with powder and ball. I say nothing of fish, as it is well known that there is always the greatest abundance here, and that there is scarcely any month in the year, from May to October, in which some new species does not make its appearance. Trout and herrings are particularly good, and there are great quantities of crabs and cray-fish.

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* In Cook's third voyage there are several anecdotes related by Captain King of the cunning of these bears. Their method of catching fish, the chief, if not the only nourishment of these animals as well as the dogs, shews as much artifice as that with which they strive to master the wild sheep. Of all the species of fish they meet with in Kamtschatka, they are particularly fond of one called there "kachly." As soon as the bear perceives shoals of it going up the river, he places himself in the water at a short distance from the bank, and standing with his legs together, leaves merely a small space for the fish, who always swims straight forward, to pass between them. A good many of them get in this manner between his legs, which the bear perceiving, makes but one spring on shore with his prey, and devours it at his leisure.

In summer there are different kinds of vegetables which grow wild, and if the value of them is not known to the inhabitants, it proceeds either from ignorance or prejudice. Besides the wild garlic which is eaten by every one, and the sarana, there are likewise wild peas, celery, angelica, and purslane, which I collected every day for the crew and for our own table, using them as well for broth as salad. The officers of the garrison found them excellent, although they had never collected them for their own use, not believing them fit to eat. Towards the end of the summer there is a great plenty of raspberries, strawberries, huckleberries, and several other species, (one of which, called the shimolost, is particularly good), and which boiled to a jam, keep very well throughout the winter. Besides, although it may be true that cabbage, peas, and beans do not attain the same perfection here as in Europe, there can be no doubt that lettuces, kale, parsley, and other garden-stuff would thrive very well. Potatoes and radishes grow as well here as any where else: in 1782, for instance, fifty potatoes produced sixteen hundred at Bolscheretzk, where the climate is not more favourable than at St. Peter and St. Paul. Corn indeed will not grow in the southern parts of Kamtschatka, owing to the constant fogs; but this is no reason why people should not live as well there as in countries where it succeeds. In the island of St. Helena they cultivate none at all, and depend for the bread which they consume entirely upon England; yet they live there in the greatest abundance. With an uninterrupted communication by water, it would be very easy to have always such a supply of corn or flour at Kamtschatka as would ensure the place against any want of this necessary article.

It is owing to the deficiency of gunpowder that the inhabitants of Kamtschatka so seldom provide their table with argalis, reindeer, hares, and ducks and geese. The conveyance of this article from the European provinces of Russia is not only difficult, but exposed to various accidents, as very often all the goods in the caravan are completely wet through; it is also dangerous, because it can only be conveyed to Ochotsk in leathern skins; and instances have occurred of whole villages having been destroyed by it on its passage. It is now never brought for private sale, and is, indeed, actually forbidden, although the Kamtschadales depend so much upon it for their safety, nothing but a loaded gun being sufficient to drive the bears, who often attack them, from their houses: they therefore purchase powder secretly, and at a very high price, wherever they can get it, paying often five and six roubles a pound for it, and three roubles for a pound of shot. The Kamtschadale thus becomes very careful of what he only obtains at so heavy an expence, preserving it either for his defence, or for some animal whose skin will repay the cost. We shot several birds in the bay, which, with a little sauce, afforded a very excellent dish, but which the inhabitants of Kamtschatka, who have no sauces at all, did not think worth the expenditure of their powder; but when we gave them powder and shot, they brought us as many of them as we could make use of. A short time before our arrival, a quantity of powder had been divided amongst the Kamtschadales, with a promise, that the next year they should have more: this second supply, however, had not yet reached them, and the Kamtschadales, as well as the Russians resident there, were entirely unprovided. As, in many

respects, it is an article of indispensable necessity; and, on the other hand, the land conveyance is difficult, expensive, and dangerous, this is another proof of the propriety of supplying Kamtschatka annually with powder, as well as many other commodities from Cronstadt.

I have hitherto only spoken of the country immediately around St. Peter and St. Paul. Farther inland there is a great plenty of every natural production. At Werchnoy, and on the borders of the Kamtschatka river, where rye, barley, buckwheat, and oats are cultivated with success, almost every species of garden-stuff is also found to thrive. We received from thence, through the kindness of the governor, not only potatoes and carrots, but cucumbers, lettuces, and very excellent cabbages. It has long since been proposed to introduce the different species of Siberian corn, which shoots up quick and soon ripens, and is, consequently, well calculated for this country, where the summers are short; such, for instance, as the Tartarian corn, (triticum polonicum), the Siberian buckwheat (polygonum Tartarium); as also, instead of the European, the Siberian hemp (urtica cannabina). It is much to be wished that these plans were carried into execution, as they can scarcely fail of producing the most advantageous results. The reason, however, why so little is cultivated there, although the soil is so productive that rye, without the least attention, returns eightfold, and barley twelvefold, is not only to be sought in the smallness of the population, but in the little value of corn compared with other articles. The husbandmen who were conveyed from the banks of the Lena to Kamtschatka only grow as much

as is sufficient for their own use, devoting the rest of their time to the catching of sables, and other business, where they are certain of a greater profit. Agriculture should be encouraged by the offer of a considerable premium, and what is raised by the inhabitant should be, at all events, purchased of him without regard to price; in short, such measures should be adopted as to render the cultivation of the soil more profitable than any other employment; for it cannot be expected that people shall follow any pursuit productive of but little profit, when they have the opportunity of turning their time to more advantage.

The prospect of any increase of the inhabitants of Kamtschatka was very much diminished, not only by the smallness of the number of the remaining Russians and Kamtschatdales, but by that of the women bearing no kind of proportion to the men. At St. Peter and St. Paul, where the number of inhabitants, including the military, amounts to one hundred and fifty or one hundred and eighty persons, there are not five and twenty females. It frequently happens that the company's ships and transports winter here, and the number of men is often increased to five hundred, while, on the other hand, that of the women remains always the same. The consequences of this pernicious disproportion are unproductive marriages, and a total decline of all morals; I do not remember to have seen more than five or six children at Kamtschatka, and these partly belonged to the officers, and partly to such of the inhabitants as had distinguished themselves by their exemplary conduct. All the marriages, with the exception of three or four, were entirely unproductive;

an evil which every possible pains should be taken to obviate. Ishiga is the only place in Kamtschatka where the number of women exceeds that of the men, and the reason assigned for this is, that most of the families are related to one another, and according to the laws of the Greek church, the most distant relatives are not allowed to marry. General Koscheleff is therefore very anxious to induce his soldiers to go on pilgrimages to Ishiga, which generally lead to marriages that turn out well: the women being famed for their activity and love of order, virtues which are the best companions a soldier can possess in Kamtschatka. There are striking examples of the comfort in which some, and of the wretched condition in which others live, according as they were diligent and active, or of a contrary disposition. I am of opinion that it would occasion no great expence, and might prove of considerable advantage, if the government offered a premium to such soldiers and Cossacks as should marry: nor need this premium be paid in money. Assist them in procuring a room to themselves, that several persons may not, as is actually the case, be compelled to live in one: an assemblage which not only ruins the morals, but disturbs the economical regulations of the whole, while it occasions strife and quarrelling; and must have a bad effect upon the health. The young couples should also be assisted with the means of cultivating a little garden, and procuring themselves a few vegetables; and supplied with the necessary instruments and utensils for a small establishment, which, owing to the scarcity of iron, are exceedingly dear. Let them have a few cows, that they may be able to supply their children with milk; and, if they do not choose to increase their stock, that they may have now and then a little

fresh meat. It is frequently only the extreme poverty of these people, and the impossibility of procuring a dwelling to themselves, which prevents them from marrying. Particular care should be taken in rewarding such as distinguish themselves by a meritorious conduct, and this would be the only means of checking the inclination to many excesses common to both sexes; for it would be difficult to effect any improvement in this respect by the adoption of measures of severity.

As Kamtschatka is in such a state of infancy, I should perhaps be carrying my desire of improvement too far, particularly as the population is so greatly diminished, if I wished to put a stop to the uncomfortable and dangerous mode of travelling in summer. The active Koscheleff has been frequently in danger of drowning; for the whole voyage from Nischney to Werchnoy is made by the Kamtschatka river in a small vessel, infinitely more resembling a trough than a boat, being nothing more than the hollow trunk of a tree, in the language of the country called a *bat*. The voyage in so frail a vessel is very dangerous, particularly at the commencement of summer, when the current is extremely rapid; and these small boats are frequently upset, as well by the rapidity of the stream, as by running, during the night, upon the trunk of some tree that is floating down it. Nevertheless, I believe that it would be very easy to construct commodious flat-bottomed boats, which would afford more security to the traveller, at least upon this river, the largest, and by its situation the most frequently navigated, and upon the Awatscha river: for scarcely a year passes in which several people are not drowned in both of them. The

preservation of a man's life is every where an object worthy of some attention, but, in Kamtschatka, it is of the greatest importance in a political point of view, that an attempt should be made to preserve the lives of the inhabitants, at least against this species of danger.

I have already had an opportunity of mentioning the wretched and miserable state of the harbour of St. Peter and St. Paul. It would be necessary to have a couple of small decked vessels there, and some European built boats, as well for the unlading of ships, as for the conveyance of wood, coals, hay, salt, whenever the salt-works are established, as for the different excursions, as well in Awatscha bay itself, as to other places some miles off, to which the baidars are frequently sent. Besides, there should constantly be a naval officer, having five and twenty or thirty men under his command, as well as some carpenters, smiths, locksmiths, sailmakers, caulkers, and other necessary workmen; in short, there should be a small naval arsenal at Kamtschatka, no matter to how trifling an extent the establishment were carried. Captain Billing's ship, the Slawa Rossii, on the construction of which more pains and money were expended than perhaps on any other ship in the world, would never have sunk in the manner it did if proper attention had been paid to it; nor do I think it superfluous, but indeed even necessary, as St. Peter and St. Paul bears the title of an imperial port, to keep there constantly a small ship of war of eighteen or twenty guns, and which might be released every third or fourth year, to be employed under the governor's direction for the advantage of the colony.

Although at present there are very few Kamtschadales remaining, and these before many years have elapsed may perhaps entirely disappear, still I cannot avoid saying a few words for the benefit of these good people, who, for kindness of heart, fidelity, obedience, hospitality, perseverance, and attachment to their superiors, are not easily to be surpassed. Notwithstanding the smallness of their numbers, their total disappearance would be a great loss to Kamtschatka, as they are useful in many respects, and, in some cases, it is impossible for the Russians to do without them.

The Kamtschadales never inhabit the towns built by the Russians, but live scattered about the interior of the country in small villages called ostrogs, of different dimensions. Since the last epidemic disorder, in the years 1800 and 1801, during which five thousand Kamtschadales perished, it is very rare to meet more than fifteen or twenty persons in an ostrog; in many there are scarcely the half of this number, although there may be others where the population is more extensive. Such an ostrog is under the immediate command of a tayon or chief, who is chosen from amongst the inhabitants, and whose character is similar to that of a starost or elder in the Russian villages. Under him he has an officer who bears the title of jessaul, and who, properly speaking, holds the executive authority of the ostrog, as the tayon does no more than deliver his orders to him. In the absence of the tayon the jessaul assumes his place, and the eldest Kamtschadale in the ostrog takes upon him that of the jessaul. The tayon's power is considerable, since it even extends to the inflicting of corporal punishments, though these must never exceed twenty lashes. They generally select as

tayon an active Kamtschadale, who has distinguished himself by his good conduct. His duty consists, besides the discharge of the internal regulations of his ostrog, in collecting the best sables, which each Kamtschadale pays annually as a tribute, and carrying them, sealed up, to the town, where they are examined in the presence of certain magistrates, and taxed by a person authorised by the crown. The amount of the duties to be paid by the ostrog is then deducted from the value of the sables, and whatever there is exceeding it is paid in money to the tayon, who divides it proportionally among the inhabitants of his ostrog. The annual taxes of the Kamtschadales amount, exclusive of the capitation tax, to about three roubles, which, however, are not paid in money but in sables, in the manner above described. It may be imagined that the sables of the Kamtschadales, of which the best are selected, are not taxed very high; but although ten or twenty roubles is the price of a good sable in Kamtschatka, the Kamtschadales have hitherto never received more than three roubles and a half for those that have been selected. At present, indeed, this sum is doubled, and when the sables are of a superior quality they are paid even ten roubles a piece; in all probability the Kamtschadale will soon be permitted to pay his duties in money, and not be compelled to give to the crown, at a low price, that which he only obtains with considerable expence, labour, and danger. When it is considered that the Kamtschadale purchases his powder and shot at the rate of five or six roubles the pound, besides the value of his time, as every traveller can dispose of him, this change will not be considered as unjust. They have likewise been recently exonerated from another burthen, which it is surprising they could have endured for a single hour. It is well known that

throughout all Russia the capitation tax is levied according to the last revision or census, which is generally taken every twenty years. As the population in Russia increases every year, this method, as it removes the trouble of an annual census, is an advantage, because, although in this time it may have doubled, it is only taxed according to the last revision, while in Kamtschatka, on the contrary, where, since possession was taken of the province, the number of people has annually decreased, it operates in a contrary proportion, particularly since the unfortunate years during which the epidemic disease carried them off by thousands. The last census took place in 1795; upwards of five thousand people died in the years 1800 and 1801, nevertheless they continued to levy the tribute upon the remainder according to that census, which made it fall particularly hard upon them, as in many ostrogs, where the number of inhabitants had been from thirty to forty, it was now reduced to eight or ten. Fortunately this did not last long.

I must mention here another favour which the government has shewn to the Kamtschadales, and which will contribute very much to the preservation of these useful people. The agents of the American company, and the other merchants in Kamtschatka, were in the habit of treating the Kamtschadales in a manner that must have proved extremely injurious to them. With no other wares than a large quantity of very bad gin, the merchants travelled about the country to procure furs. As soon as one of them arrived in an ostrog he treated his host with a glass of spirits. The Kamtschadales are all so unfortunately attached to strong liquors, that it is absolutely impossible for them to

resist the pleasure of getting intoxicated. As soon as he has drank a glass of gin which he receives for nothing, he instantly begs for another, for which, however, he must pay: then a second, a third, and so on. Still, however, he has had his spirits unadulterated; but the moment he begins to be intoxicated, instead of pure spirit they give it him mixed with water; and in order that the deception may be carried on with the more security, the merchants have the vessels destined for their spirits, called fliäga, divided into two parts, in the smaller one of which they carry their unmixed spirits, and in the other the mixed. The merchant now continues to ply the Kamtschadale with the weaker liquor until he becomes perfectly senseless, and then takes possession of his whole stock of sables and other furs, alleging that they are to pay for the quantity of spirits which he has drank. Thus, in an unfortunate moment, the Kamtschadale loses the reward of many months labour and cost, and instead of providing himself with powder and shot, flour, and other necessary and indispensable articles, such as would have contributed to his own and to his family's comfort, he has exchanged all his wealth for one debauch, which only weakens him, and renders him more helpless and destitute for the future. This wretchedness is accompanied by a depression of spirits, which must have a pernicious influence on his body, already weakened by disease, and which, at length, from the total want of substantial food, and of medical assistance, becomes unable to resist such frequent attacks upon it. This appears to me the cause of their annual decrease, assisted by epidemical disorders, which sweep them off in great numbers.

These desolating journeys have always been tolerated. It had, indeed, been observed, that during the periods in which the travelling merchants made this attack on the property of the Kamtschadales, they were exposed to lose what they had collected to pay the tribute to the crown, and it had therefore been established that the merchants should not commence their annual journey until this was discharged. But General Koscheleff considered this regulation as insufficient, and endeavoured to extirpate the evil altogether. He has not, indeed, forbidden the merchants from travelling in order to trade with the Kamtschadales; but he has entirely prohibited the sale of spirits in their ostrogs, which rendered these expeditions so profitable to them, and so destructive to the inhabitants.

The necessity of the Kamtschadales in Kamtschatka is sufficiently proved, by their being every where the guides through the country, and by their conveying the mail, which they do likewise, free of expence. In the winter they are obliged to conduct travellers and estafettes from one ostrog to another: they supply the dogs of those who travel with jukula; they also lodge the travellers; this, however, they are not obliged to do. This hospitable people has, of its own accord, engaged to lodge every traveller, and to feed his dogs without demanding any remuneration. In every ostrog there is a supply of fish set apart for this purpose. In general the governor and all officers keep dogs, so that in this respect they are not burthensome to the Kamtschadales; but a story is still told of a magistrate high in office, having been here a short time since, who never travelled but in a sledge like a small house, drawn by an hundred dogs.

Besides this, he is said to have journeyed with such rapidity, that at every station several of these animals belonging to the Kamtschadales expired, which he never paid for. In the summer the Kamtschadale is obliged to be always ready with his boat to conduct the traveller either up or down the rivers; nor can the soldier be sent any where without having one of these people for his guide. Thus it frequently happens that they are absent a fortnight or more from their ostrog, and lose the best opportunity of providing themselves with fish for the winter, as, besides the mere act of taking the fish, it requires several days of fine summer weather to dry them. If the wet should set in during this operation, the fish instantly becomes maggoty, and the whole stock is rendered useless. From the great number of soldiers, (as, besides the Cossacks, there is a battalion of five hundred men, and about twenty officers quartered in Kamtschatka), and the small number of Kamtschadales, it must be sufficiently evident that the latter are frequently taken from their work, and, it may be added, almost without remuneration; for the post money allowed by the crown, which amounts to one kopeck the werst, considering the high price of every article, is, surely, not only an inconsiderable, but an insulting, reward for the service performed. The present governor has shewn himself their benefactor even in this*, having laid down a plan for the better regulation of the posts, according to which every Kamtschadale will receive an ample remuneration for any service he may perform to the crown. These people, in spite of

* General Koscheleff quitted the government of Kamtschatka in the year 1808.

their extreme poverty, are an example of honesty: in this respect it is altogether impossible to exceed them, and it is as rare to find a cheat among the Kamtschadales, as a man of property. Travellers on their arrival in any ostrog usually give their money, papers, and valuables, and even their stock of brandy, tea, sugar, tobacco, &c. into the hands of the tayon, and there is no instance of any one having been robbed to the smallest extent. Lieutenant Koscheleff told me that he had once been sent by his brother, the governor, with thirteen thousand roubles to distribute among the different towns; that every evening he made over his box with the money to the tayon of the ostrog where he slept, and felt much easier, having so disposed of it, than he would perhaps have done in any inn in St. Petersburg. The only fault of the Kamtschadales is their propensity to drinking spirits; but this is chiefly to be ascribed to the interest which the merchants have in nourishing it. A moderate use of strong liquor is necessary in this raw climate, and it would be easy to supply the people now and then with a small quantity at a reasonable price, instead of obliging them to forego the use of it for several months, and, the instant they can procure it, permitting them to deprive themselves of all they possess in order to get intoxicated.

The Kamtschadales have adopted the Christian religion. The Greek priesthood in Kamtschatka is another object to which some attention ought to be paid, as it is absolutely necessary to improve their condition. I had, indeed, only an opportunity of seeing two priests, the one of St. Peter and St. Paul, and the other from Bolscheretzk, who, shortly after our arrival,

came there with a large quantity of very valuable furs, but returned as soon as he had terminated his affairs. I can therefore say nothing with regard to his conduct. The priest of St. Peter and St. Paul was a scandal to his profession: in the interior, they are said to be no better, and to be particularly obnoxious to the Kamtschadales.

CHAPTER IX.

PASSAGE FROM KAMTSCHATKA TO MACAO.

Plan of our intended Voyage to China—We discontinue our Search for the Land seen by the Spaniards in 1634*—Violent Storms in the thirty-first and thirty-eighth Degrees of Latitude—Several Signs of the Vicinity of Land—Fruitless Search for the Islands of Guadeloupe, Malabrigos and Don Juan—We see Sulphur Island and South Island, and direct our Course to the South Point of Formosa—Pass the Straits between Formosa and the Bashee Islands, during a very stormy Night—Obtain Sight of the Rock Pedro Blanco and the Coast of China—Perceive a large Fleet of Chinese Pirates—Some Account of them—Anchor in the Road of Macao.*

ALTHOUGH the season was already far advanced, I nevertheless wished, if it could be effected without much loss of time, and the winds did not prove unfavourable, to examine, during our passage to China, several objects in this ocean, where, according to ancient accounts, many islands are supposed to exist. But this, in fact, is doubtful, and the chance of finding them where they are laid down in the charts, their situation varying in almost all of them, is, at all events, very problematical; nor is it possible for the compilers to agree exactly in the draught of these imaginary islands, nothing being positively known, either with respect to their discovery or situation; and they probably owe their existence in later ones to Lord Anson's having found, in his celebrated prize, in the year 1742, a Spanish chart, by which the galleons were accustomed to direct their course

from Acapulco to the Philippines. This chart, of which an amended copy is in Anson's voyage, is filled up with a number of islands, which have all been carefully copied, although the frequent voyages in this sea have proved that the greater part of them are not, at least, where they are laid down. A number of names of doubtful islands and rocks only confound, and can never be of any use to navigators, unless those which really exist, and whose situation is accurately determined, be distinguished from the imaginary ones by something calculated immediately to strike the eye. These observations have induced me, in my chart of the north-western part of this ocean, to lay down only such islands as have been seen and described by modern navigators, and to mark at the same time the year of their discovery. In order, however, that I may not be accused of having inspired the navigator, who may make use of this, with a false security, by the omission of islands and rocks whose existence is very possible, I have subjoined to my atlas a copy of the western part of Anson's chart, without any other alteration than assigning to it its true boundaries; for instance, a part of the Philippines, the Likeo, and the Japan islands. I am besides convinced, that this chart can contribute but little to the safety of the navigator, and that the discovery of islands and rocks in this ocean may well be left to chance. As a proof of this assertion, I may adduce the islands that have been discovered in latter times, such as Gore's Sulphur island, Meares's Lot's Wife, and the Grampus islands; Douglas's rocks, called by him Guy's rocks, the reef to which he gave his own name, and Wakes's rocks. All these and several others were found, without any intention of making discoveries in this part, although it is not impossible that they may have been seen

formerly by the Spaniards. The navigator should, however, lay it down as a rule, to avoid as much as may be the routes of those who have gone before him, and to examine as closely as possible the spots where more credible, that is to say, more modern navigators, have seen undoubted marks of land. This rule, which I laid down for myself, I have always endeavoured, as much as my duty would allow, to pursue. No stress should be laid upon reports, even when upheld by the opinion of the most learned geographers, such, for instance, as that of Buache on the possibility of the existence of the land seen by the Spaniards in 1634, nor any search made for them in consequence, except when it can be done without loss of time, or the possibility of missing a more important object. It was, however, probable, that a fortunate accident might have favoured us in making some discovery, if not entirely new, at least tending to confirm some that had already been made; and for this reason I determined to shape my course to China, so as to enable me to examine those parts where, in Arrowsmith's chart, the islands Rio de la Plata, the Guadeloupes, the Malabrigos, the islands St. Sebastian de Lobos, and St. Juan, as well as others lying to the south are laid down, and then to pursue a tract to the island Botol Tobago Xima, near the south point of Formosa, between which and the Bashee islands is the usual route to Macao *.

* During our absence, an Englishman, Captain Burney, published an important work on the early discoveries in this ocean. A Chronological History of the Discoveries in the South Sea, or Pacific Ocean, by James Burney, 2 vols. 4to. London, 1803—1806. I shall have an opportunity of mentioning some things in this work, which was unknown to me at the time of our voyage.

The north wind which, since the middle of September, had blown almost constantly in Awatscha bay, left us when we had scarcely more than ten minutes quitted the land. After some hours calm a southerly wind arose, which gradually veered to the S. W., blowing pretty fresh throughout the night. The weather was very cold: during the last four days of our stay in Awatscha bay, we generally experienced in the morning one, or one and a half degrees of cold; and with the brightest sunshine, the quicksilver never rose at noon above four degrees. On shore the cold was still more sensible: a courier whom the governor had dispatched to St. Peter and St. Paul, and who arrived five days previous to our departure, found a deep snow with extreme cold in the neighbourhood of Werchnoy.

The southerly wind, at this time of the year a very unusual one, appeared obstinate, and continued throughout the 9th, 10th, and 11th October. On the morning of the last day it shifted to the N. W., blowing strong, and accompanied by rain and fog: the sea ran very high from the S. E. During the night the wind shifted to N. N. E., and blew fresh throughout the next day at E. S. E. and east, the fog continuing very thick. My course, if the wind had allowed it, was S. by E., but I was often compelled to steer to the westward of south. On the 13th October the sun made its appearance for a few minutes, and we had an observation in 47° 50′ 20″ N., and 197° 00′ W.

On the 15th October the ship was surrounded by sea-swallows and mews; we likewise saw a cormorant, a species of bird that never flies far from land. On the same day, in latitude

45° 31′, and longitude 197° 30′, we crossed the course we had pursued on the 9th of July, in the preceding year, from the Sandwich islands to Kamtschatka, on which day we had seen a number of divers and whales. Towards evening it blew violently at east with a heavy rain, and we were obliged to take in all sail, except a reefed fore and main-top-sail. On the 16th of October the wind shifted from N. to N. E., but the sea ran so high at E. and E. N. E., that we were compelled to vary our course to W.S.W. and S.W. by W., in order to ease the masts a little. In the afternoon the storm abated: from the 13th to the 15th we had no observation, but I conceived myself to be in 41° 54′ N., and 198° 32′ W., and was therefore induced to give up all farther search of the land seen by the Spaniards in 1634. It was my intention to have passed the meridian of 195° 30′ in latitude 86° 15′, and then to have sailed six or seven degrees direct to the westward, because, in the former year, we had sailed in this parallel as far as 194° 20′, and Captain Clarke had crossed the 36° 15′ of latitude in 195°. On both sides of his course, to an extent of thirty miles, if there had been any land, he would certainly have seen it, and this induced me to steer always rather an easterly course after I had left the coast of Kamtschatka till I came to 197°, when I was often obliged to pursue a more westerly one. It had therefore become altogether impossible for me to reach the point I aimed at without considerable loss of time, for I was really afraid of arriving too late in China, concluding the Neva to be already waiting for us there; she did not, however, arrive until a fortnight after us, and I have now to regret not having employed the time spent idly at Macao in the pursuit of the above objects. But, besides

the foregoing reasons, it is very difficult for a vessel sailing to the westward to make any search for this land, as in the parallels of the thirty-fifth degree, and of the thirty-seventh and a half, which is nearly the place of their supposed existence, the west are the prevailing winds. If, too, an easterly wind should spring up, as was the case when we passed these parts the preceding year, it is always accompanied by such gloomy weather as renders the horizon extremely circumscribed, and the thickest and most impenetrable fog often continues, except at short intervals, for several days, as we have too frequently experienced. A space of many months is necessary in order to examine twelve or fifteen degrees of this foggy sea, provided you only follow any particular parallel during the fine weather.

In the night of the 19th of October we again fell in with a very heavy gale at S. E., accompanied by thick, dirty weather. At noon we were unable to carry any sail except a storm stay-sail and reefed fore and main-top-sails. At two o'clock the storm was at its height, and split our fore-top and stay-sail: the ship's motion being uncommonly heavy. Towards evening it abated a little, and veered to the south-west; but at midnight it again increased, and became very furious, accompanied with violent squalls. At six o'clock the storm subsided, after raging twenty-six hours: the high sea, however, continued, and we were at length obliged to lay the ship's head directly against it, in order to ease the violence of the motion.

On the 21st October we had a moderate observation for the latitude, but could obtain none to ascertain the time. It rained

continually, with a fresh wind at S. and S. S. W. The air was now become hot, and the thermometer had risen to 18°. The next day, the 22d October, we had an observation in 36° 36′ N., and 201° 58′ W. Shortly after noon it fell perfectly calm, with a continued and very heavy rain: the sea ran uncommonly high from the north; I never saw any ship so tossed about as ours during this calm, which lasted until eight in the evening, and often made us tremble for our masts. In fact, some of the ship's bolts were actually started by the violence of the motion. At length we perceived a gentle breeze coming up from the eastward, and the next day we saw tropic birds and cormorants, and fancied we descried land to the southward. I directed my course towards it, but it soon appeared that what we had imagined to be land was merely clouds. At noon we had an observation in 35° 18′ N., and 201° 54′ W., the variation of the needle was 7° 36′ E. The wind which, during several hours, had been at N. W., now veered to N. E., bringing with it thick, gloomy weather, which generally accompanies the N. E. and east winds. My course now lay S. W. by W. in the direction of the Guadeloupe islands.

On the 26th October we had some good observations, by means of which we found ourselves to be in 31° 5′ 25″ N., and 208° 33′ 30″ W.: during the whole day the wind blew from the southward; but towards evening we experienced alternate calms and squalls from all points of the compass. This weather, with continued flashes of lightning, continued throughout the night. The sky was thick, and concealed by dark black clouds, pouring down a heavy rain: every symptom of an approaching storm appeared, and we prepared ourselves against it: the ba-

rometer, at the same time, fell to twenty-nine inches two and a half lines. At four in the morning of the 27th October the storm commenced by a violent squall, which split both our top-sails; at eight it raged violently, and at eleven was at its height: the waves ran so high, that an ill constructed ship, unprovided with good rigging, could not possibly have resisted them. We could only compare it to the typhon which, the preceding year, we had experienced in the same parallel, although its violence was not of so long a duration, and except this, it was by far the most violent gale we experienced in our whole voyage: coming on like the typhon from E. S. E., and veering, though not so suddenly, to N. E. At four in the afternoon the wind fell a little, and by eight we were enabled to disencumber ourselves of our torn sails, and to bend others. A great many sharks surrounded the ship, while the storm was at its height, and between two and four o'clock we caught six of them with a line, and secured them on board *. At six o'clock we set reefed topsails, and directed our course to the southward, being compelled to take this direction by the high sea from the S. E., hoping it would enable us to ease, in some degree, the ship's motion. The constant violent agitation of the ship, which had continued above a fortnight, and the great heat, had so slackened the shrouds, that I was obliged to pursue this course for the safety of our masts. In the evening we caught two boobies, and another land-bird; these, as well as a number of tropic birds and dolphins that surrounded the ship, seemed to prove

* One of these sharks, nearly nine feet long, broke from the hook after we had haled him up the ship's side. Although it had torn its under jaw, it returned to the bait with fresh fury, and was taken a second time.

that we were at no great distance from land; but the only coast we were near, and that was about one hundred miles from us, was the Water island discovered by the celebrated adventurer Benioffsky *. The untruths by which this adventurer has destroyed all interest in his extraordinary fate, have very properly deterred geographers from adopting the discoveries laid down in his chart. I firmly believe, however, that we could not be at any great distance from land; the night was clear, and we sailed under easy canvas towards the south; I gave express orders to keep a watchful look out for land, but we were not able to see any.

At length, on the 29th October we had a fine day, but the air was so damp that the hygrometer, of which the highest

* Benioffsky's Water island lies, according to him, in 32° 47′ N., and 355° 8′ east of Bolscheretzk, or, what is the same thing, 208° 12′ west of Greenwich. The next day he saw another island, and three days after found himself on the coast of Japan, which, according to our observations in Benioffsky's parallel, is in the two hundred and twenty-seventh degree of longitude. This shews that the longitude of the island he discovered is laid down very incorrectly by him, the difference of longitude between Water island and the coast of Japan amounting to nearly twenty degrees. If what he says of his stay in Japan is not altogether a fiction, which I scarcely believe to be the case, although he would not fail to adorn this part of his voyage with a number of untruths, as he has the account of his escape from Kamtschatka, it appears to me clear from his account, that his Water island belongs to that chain which lies to the south of the bay of Jeddo; for the next day he saw islands, nor did he lose sight of them until he came to an anchor in the bay which he calls Usilpatschar. This agrees with the above-mentioned chain of islands, one of which, Fatsisio, lies nearly in the latitude he mentions. It would, however, be a very thankless task to endeavour to trace Benioffsky's course in this voyage.

degree of damp was only 70°, constantly stood at 65°. After I had caused a fire to be lighted in my cabin in order to dry it, and the heat, which in the open air was 21°, had increased in it to 25°, the hygrometer still sunk only to 54°. By our observation at noon we were in latitude 39° 31′ 47″, and in 210° 20′ 00″ longitude. The variation of the magnetic needle, by a mean of several forenoon observations of the azimuth and of the amplitude of the sun, and which varied from 3° 30′ 30″ to 5° 9′ 40″, was 4° 42′ 50″ east. By the observation in the afternoon it was 5° 45′ 09″, making the mean of the fore and afternoon observations 5° 13′ 55″. We were now enabled, for the first time since our departure from Kamtschatka, to take some distances of the moon, but the ship's motion was so great that Dr. Horner and myself only succeeded in obtaining two sets. Mine reduced to noon, gave 210° 38′ 35″; Dr. Horner's 210° 22′ 37″. The chronometer, No. 128, gave, at the same time, 210° 19′ 45″.

The fine weather we had enjoyed to-day only lasted till midnight: the sky became cloudy, and it began to blow hard with violent squalls, one of which carried away our main-top-sail. As I had saved my new sails for the Chinese sea, where, particularly in the channel between Formosa and the Bashee islands, violent storms prevail in all seasons, and the loss of any principal sail is attended with danger, I only used our second and third set of sails; but as these split and tore in every gale, I was at last obliged to have recourse to the best, keeping, however, the sail-maker constantly at work, in spite of the continued rains, which proved a great hindrance to him.

On the 31st October, at six in the morning, I esteemed myself

in latitude 28° 22′, and longitude 211° 50′. As it was my intention to steer by that part in which the group, called the Guadeloupe islands, is laid down, I now held W. S. W. The northernmost of these, according to Arrowsmith, lies in 28° 30′, the southernmost in 27° 58′, and the whole group between the two hundred and thirteenth and two hundred and fourteenth degrees of longitude. Thus with a W. S. W. course I expected to cut through the middle of them; but we had scarcely run a degree to the westward, when a violent thunder-storm, accompanied by heavy rain, arose; this was soon followed by clear weather, but it fell calm, and continued so till night, when the wind again sprung up at due west. At this time we were only fifteen miles from the easternmost of the Guadeloupe islands; and yet with the finest weather, and a very clear horizon, no land could be descried from the mast-head; one land-bird was the only, and, indeed, very uncertain token of the vicinity of land; I lay to until day-break of the 1st November, and then continued our course on a wind, S. S. W. At noon we had an observation in 27° 46′ N., and 212° 56′ W.: we were now nearly in what is described as the parallel, and only forty miles to the east of the northernmost of the Malabrigos, which must lie much more to the eastward; for had they been more to the west, Captain Gore, whose course lay within sixty miles of them, must undoubtedly have seen them.

In the parallel of the northernmost of the Malabrigos, that is in 27° 32′, is also the island of San Juan, of which Captain King says, that he must have seen it had it been in existence. The weather was particularly fine, and the horizon very clear; and at a distance of sixty miles no land could have escaped us,

especially as the greater part of the islands scattered about in this ocean are of considerable height, and, owing to their volcanic origin, are distinguished, like Gore's Sulphur island, by being mostly in the form of a peak. In the ancient charts a number of them are laid down by the name of volcanos.

Being very anxious to ascertain the existence of any land in these parts, I lay to at sun-set, and the next morning, the 2d November, continued my course to the southward. At noon we had an observation in 27° 12′ 20″ N., and 213° 20′ 50″ W., we were, therefore, only six miles to the northward, and by the time-pieces forty miles to the east of Margaret island, discovered, according to Arrowsmith, by a Captain Magee in 1773. If the longitude of the island is correct, it must be very small, both in extent and height, otherwise we must have seen it. But it is probable that it lies much more to the eastward; for, if it lay to the westward, it could not have escaped either Captains King or Gore.

On the 3d of October we were, by observation, in 26° 26′ N., and 213° 55″ W. In this situation we must have been only fifteen miles from a group of these islands, to which no names have been assigned; but we could perceive nothing. The 4th November we had an observation in 26° 12′ 16″, and 214° 51′ 30″; and on the 5th in 25° 42′ 39″, and 215° 32′ 30″, I steered S. W. in a course right between those of Gore and Meares. At one in the morning we crossed Meares's course in the twenty-fifth degree of latitude, and as that now ran N. E. and S. W., I steered S. S. W. to keep away from it. On the 6th November we had an observation in 24° 26′ 48″ N., and

217° 14′ 30″ W.: constant southerly winds had, in the last twenty-four hours, driven the ship seventeen miles to the northward, and, contrary to my intention, brought us very near Gore's south island. The next morning at nine o'clock it bore due west of us. At noon S. W. 75°, distant sixteen miles: by our observation we were in 24° 18′ 20″ N., and 218° 20′ 30″ west.

South island is of a round form, a mile and a half in diameter, and five hundred and twenty toises high. It is a bare rock, having a peak in the centre, and very much resembles Jonas island in the sea of Ochotsk; it appeared to be free from any surrounding rocks. At four in the afternoon we distinguished Sulphur island to the N. W. Throughout the night the wind blew fresh from the S. W. and W.; and the next morning, the 8th November, at N. N. W. with thick weather and constant rain. At noon the wind shifted to N. N. E.: this at last was the true trade wind, and brought with it fine clear weather. Gore and King both fell in with it near these islands. We had an observation in 23° 50′ N., and 218° 15′ 30″ W. South island then bore by compass N. E. 40°. At four o'clock it lay due north of us; and by an altitude of the sun taken at this same moment we calculated its longitude to be 218° 38′. The latitude we found to be 24° 14′ 40″, that is to say, 7′ 20″ to the south of what Captain King makes it; but as he only saw the island at some distance, and we passed two days close to it, I think our observation likely to be the most correct. The latitude of Sulphur island we found to be very nearly what Captain King makes it, 24° 48′; and its longitude only one minute more to the east, namely 218° 47′.

The relative situation of these islands is so similar to that of a

group in Anson's chart, that no doubt can exist of this being one and the same. The centre one is there called Farellon, the northernmost St. Alexander, but the southernmost has no name; in Arrowsmith it is called St. Augustin: the difference of latitude is considerable, that of the longitude, on the contrary, proportionably trifling. The centre one in Anson's chart lies 50′ to the north, and a degree and a half to the west of Gore's Sulphur island *.

I now steered W. by S. and W., wishing to remain some time between the twenty-third and twenty-sixth degrees of latitude; but as we perceived by our observation the next day that a current set us to the southward, I altered my course to W. ¼ N. and W. by N. On the 12th November we had an observation in 23° 28′ N., and 227° 47′ W.; the weather was clear and warm, and the air drier than we had yet found it. On the 13th November we had no observation: on the 14th in 25° 00′ N., and 231° 00′ W., we must have had the rock called by the

* It appears from Burney's Chronological History of the Discoveries in the South Sea, that in the year 1543, Bernardo de la Torre, on board the ship San Juan, discovered on a voyage from Mindañao to New Spain three islands in the twenty-fourth and twenty-fifth degrees of latitude, five hundred leagues from the island of Tandaya, which were called the Volcanos. Burney concludes from the account of this voyage, published by Gaetan, the pilot of the San Juan, that the Volcanos must be Gore's Sulphur island, with the north and south islands. This supposition is very probable, and, except in the names, which are incorrect, they are the same as those laid down in Anson's chart; Farellon in Anson being probably the island of Forfana discovered by Bernardo de la Torre in this same voyage, and which, according to Gaetan's account of La Torre's voyage, in which Burney places the greatest confidence, must lie in the 25° 34′ of north latitude, and 143° 02′ east longitude.

Spaniards Abreojos (open your eyes), about a degree to the southward of us. It is not improbable that the reef discovered by Captain Douglas in 1789 in latitude 20° 37′, and longitude 223°. 50′, is the same as the Abreojos, although in Anson's chart the latter lies more to the northward and westward, and is more extended than Captain Douglas makes it*.

The numerous observations we made twice a day to ascertain the variation of the needle, the results of which were at one time some minutes to the east, at another to the west, seemed to prove that nearly in latitude 23° 00′, and longitude 230°, the variation of the magnetic needle might be considered as null. It is extremely trifling throughout the Chinese sea; and on the eastern coast of Japan, of Jesso, and in the Japanese sea, was almost null, as before mentioned, nor can it be subject to any great changes in these regions, as Commodore Byron found no variation here in the year 1765.

On the 17th November we had an observation in 22° 3′ 18″ N., and 237° 20′ 40″. The wind during the last two days had blown from the S. E.—S. and S. S. W., quite in a contrary di-

* According to Gaetan (Burney's History, vol. i. p. 239), the Abreojos discovered by Bernardo de la Torre lies in 16°; Herrera places it in the 26° of latitude. The error of the press is no doubt in Herrera; but in all probability the Spaniards have given this name to some other reef. In Anson's voyage it lies in latitude 22° and 7° to the eastward of Farellon and St. Alexander, or, what comes to the same thing, 148° 20′ east of Greenwich. Burney calculates the longitude of the Abreojos, discovered by La Torre, from the known situation of the Volcano islands, seen shortly after, to be 132° 00′ east.

rection to that of the monsoon, and the weather was hot and close, the thermometer standing at 22°. According to our observation at noon, the island Botol Tobago Xima ought to have been to the eastward of us, at a distance of fifty-three miles; we could not, however, perceive any thing of it. At two o'clock in the afternoon we had a fresh breeze at north, after some hours calm, with thick weather and a high sea from the S. W., and I was now obliged to obtain sight of the island of Botol Tobago Xima before sun-set, that we might know our situation, and steer a safe course through the night. Towards evening the wind increased to a violent storm. As we had taken very good observations, and I could depend on the correctness of our time-pieces, as well as on the accuracy with which the dangerous passages of the channel of Formosa, and especially the rock Vele Rete, are described, I determined, notwithstanding the storm, to run through the channel in the night. Daring as this appears to be, I could not have laid by outside the channel, exposed to the rapid and uncertain currents, without considerable danger. I steered S. W. by W. until ten o'clock, when I calculated that I was about ten or fifteen miles to the southward of Vele Rete: from ten till two I steered W. S. W., and from two till day-break west. At midnight the storm was the most violent, the wind at that time veering to N. E. I placed people throughout the night on the bowsprit and on both sides of the ship, to give warning of any danger, in case the current should carry us nearer the land than I calculated upon. It proved, however, that we kept pretty fairly in the centre of the channel. At eight the next morning, the 18th November, the storm abated, and the clouds dispersed, and we now saw, although not very distinctly, the south point of Formosa bearing

N. W. 40°. I altered my course to the N. W. by N., to gain the north end of it, which we had lost by steering too much to the southward during the night. In passing this channel in the day-time it is necessary to steer a more northerly course than I could venture upon at night, since it is very difficult, as the Resolution and Discovery experienced, to weather the Pratas, especially if the trade wind blows from the northward. In the channel itself there is no danger, except of the Vele Rete, which is surrounded by a reef of rocks, two miles in circumference. The rock itself, in clear weather, may be seen at the distance of eight miles *.

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* Several navigators have taken the trouble to ascertain the precise situation of this dangerous rock; but having made their observations as they sailed by it, their accounts are naturally very different. I will mention here such as are entitled to the greatest degree of credit.

According to Dalrymple's chart of the Chinese sea, printed in 1771, Vele Rete lies 3° 53′ 40″ east of peak Banguay. This peak, by Dalrymple's notes on his chart, lies 117° 17′ 30″ east of Greenwich. Vele Rete would therefore lie in 238° 49′ 30″ west. But I believe the longitude of the great Ladrone islands is much better ascertained than that of peak Banguay. By a mean of several observations of the longitude of the great Ladrone islands I find it 113° 48′ 50″ east of Greenwich: now, as Vele Rete in Dalrymple's chart is 70° 11′ east of the great Ladrone islands, its situation will be, according to

Dalrymple	21° 48′ 30″ N.	and	239° 00′ 10″ W.
Robertson	21° 45′ 00″	.	238° 52′ 15″
La Perouse	21° 49′ 00″	.	238° 48′ 00″
Marchand	21° 45′ 00″	.	239° 01′ 00″
Broughton	21° 43′ 24″	.	239° 15′ 00″

according to Gadd, a Swedish China captain, and an accurate observer, it lies in 21° 40′ 00″ N., and 239° 02′ 00″ west.

Captain Broughton's observations appear to me, at least with respect to the latitude, to merit the preference, as he passed in very favourable weather between

We had a calm throughout the day; and at eight in the evening a very fresh breeze with a high sea from the northward; but the next morning, the 19th November, it veered to N. N. E. I steered N. W. by W. and W. N. W., because, with the strong northerly wind I had to dread a considerable current from the south, and was desirous of keeping as far off as possible from the dangerous Pratas. Our observation at noon, 22° 6′ and 242° 08′, agreed pretty exactly in point of latitude with that of the ship's reckoning, but the longitude was forty miles more to the westward. At six in the evening I steered W. by N.; I then conceived myself in latitude 23° 18′, that is to say, 2′ south of the rock Pedro Blanco. We had thirty fathoms water over a clayey ground; and I now steered due west, with a very strong wind. About one o'clock we found ourselves surrounded by a number of Chinese fishing-boats, which compelled us to shorten sail during the rest of the night, in order not to run over some of them. In the night we had constantly twenty-eight and thirty fathoms water. As the day began to dawn on the 20th November, I was not a little astonished to see Pedro Blanco bearing N. E. 75°, distant about ten miles. Admitting a current of two miles the hour, I could scarcely have thought of having the rock to the northward of us; but we must have passed about three miles to the south of it without seeing it. We shortly after distinguished the whole coast of China, which I approached within a few miles, and

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Formosa and Vele Rete, the only example I recollect of any one having sailed between them. It is to be regretted that he has not given the soundings of this channel. He makes Vele Rete to lie fifteen miles S. W. 12° from the S. E. point of Formosa.

then steered west for the island of Ling-ting, between Gros-Lema and Potoy.

Coming from the eastward, the passage between Lema island to Macao is far preferable to the outer one. It shortens the way considerably, and the more so, as it enables you to keep before the wind. By steering southward of the Asses Ears, and the great Ladrone islands, a vessel is frequently obliged to beat up for some days, in order to fetch the road of Macao, neither the wind nor the currents being favourable to such a navigation. The chart of the passage between Lema, in the new East Indian atlas, published in 1803, is, like most of those in this voluminous collection, a very bad one: the relative situation of Pedro Blanco, of Singsoy, and Tonnang islands, certainly appear correct, but they require to be very much compressed. Dalrymple's chart of Lema island is infinitely more correct*. It is the more surprising that the compiler of the East Indian atlas should have neglected the good materials of which he might have availed himself, and merely followed such as are really bad. This is unfortunately the case in almost every sheet of this atlas not copied from some known chart.

We saw no boat, and were therefore obliged to venture the passage without a pilot, which, if I had at that time been possessed of Dalrymple's chart, would have caused me but little uneasiness; but we had scarcely passed the Gros-Lema and

* The latitude of Pedro Blanco, in Dalrymple, is only 8′, and that of Macao rather less than 7′ too much to the north.

Potoy when one came on board. The wind blew fresh, and we steered under all sail between the islands lying in our route, the whole of which, without exception, are incorrectly designed in the East Indian atlas. At five in the evening we saw a large fleet of boats, apparently consisting of about three hundred sail, lying at anchor under shelter of the island of Lantoo. We took them for fishing-boats, and sailed quietly by them; but we learnt afterwards at Macao that this was a fleet of Chinese pirates, who, during the last three years, have committed their depredations on the southern coast of China, attacking every vessel that is not upon its guard, and does not appear to them too strongly armed. In this manner they had lately taken an American ship and two Portuguese vessels, the one between the Lema islands, and the other, which was proceeding from Cochin-China, off the coast of China, at a very short distance from the land. Nothing was known as to the fate of the American; but they had learnt at Macao that all the Portuguese who refused to enter their service were murdered. Some of the crew of the Portuguese vessels agreed to do so, and succeeded, after a time, in making their escape. They burnt the vessels after plundering them. These pirates have vessels of two hundred tons in their fleet, manned with one hundred and fifty or two hundred seamen, and mounting from ten to twenty guns; and the smallest of their boats carry thirty or forty men. If they can succeed in boarding a vessel, they are certain of their prey from the superiority of their numbers; they would be infinitely more dangerous, if they possessed more courage, and skill in their manœuvres, and knew how to use their artillery. In the road of Macao, and even in the Typa, vessels were not secure against their attacks; and the passage

from Macao to Canton was particularly dangerous. The members of the English factory, whenever they had occasion to go from one of these places to the other, were accompanied by the armed boats of two English frigates lying in the Bocca Tigris, having once narrowly escaped falling into the hands of these pirates. The English brig, Harrier, of eighteen guns, Captain Radsey, had been cruising here for the last ten weeks, as well as two Portuguese armed vessels; one of which had lately had an engagement with eighty of these pirates, and had been so successful as to cut her way through them. Nothing but the violence of the storm could have deterred them from attacking us, and they might have been the more certain of their prey, as we had not the slightest suspicion of them, taking their vessels for fishing-boats, which, it is well known, sail in these parts in large fleets*.

At seven o'clock in the evening of the 20th November we cast anchor in the road of Macao in seven fathoms water, after sailing above an hour in the dark in a violent storm of wind and rain. At day-break we found that Macao bore N. W. 86°, about five miles off. The little island of Potoy S. W. 6°.

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* The account of these Chinese pirates had shortly before reached Europe; and I received, whilst at Kamtschatka, a letter from my friend, Counsellor Würst, warning me to be on my guard against them. I fancied, however, that he meant the Malays, who also infest, and render the Chinese seas very dangerous, frequently attacking European ships with the greatest success: of real Chinese pirates I had not the slightest suspicion. The Malays chiefly infest the coast of Palawan, Borneo, and the entrance of the straits of Malacca.

CHAPTER X.

STAY IN CHINA.

The Nadeshda sails into the Typa—Arrival of a Chinese Comprador—We learn that the Neva had not arrived in China—This occasions us some Uneasiness—Explanation to the Chinese Government of the Nature of our Arrival, and Stay at Macao—Restrained Situation of the Portuguese in Macao—The Chinese treat them with very little Moderation—Hazardous Situation of the Governor there—The Loss of Macao, probably, at no great Distance—Beautiful Garden belonging to Mr. Drummond—Camoens' Grotto—Arrival of the Neva with a rich Lading of Furs—The Chinese will not allow the Nadeshda to proceed to Whampoa—I sail in the Neva to Canton to obtain Permission—Arrival of the Nadeshda at Whampoa—Difficulty of opening a Trade with Canton—Through the Intercession of an English House, the Neva's Cargo is purchased—We prepare for our Departure from China—Sudden Orders of the Viceroy for our Detention—Representations made in consequence—Mr. Drummond, President of the English Factory, exerts himself in our Behalf—Final Orders to allow the Ships to sail—The Nadeshda and Neva quit Whampoa.

At eight in the morning of the 21st November we perceived a boat coming off to us, which succeeded in fetching the ship, although the wind still blew very fresh, and our distance from land could not be less than five miles: it brought a Chinese comprador*, who offered his services. Our first question was

* In China they call those people compradors who supply vessels with necessaries during their stay at Macao and Whampoa. Although these compradors are obliged to pay large sums to the Mandarines for each ship, their profit is, never-

for the Neva, which, to our astonishment, we learnt had not yet arrived. In conformity with our arrangements, the Neva ought to have been here some time in October, with a cargo of furs from Kodiak; and the value of this cargo was to be laden in Chinese goods on board of both vessels: I was therefore in no small dilemma, and found myself compelled to await her arrival at Macao, although the preciseness of the Chinese rendered this difficult for any length of time. The comprador was accompanied on board by a pilot, who offered to carry us into the Typa (a safe anchorage two miles to the south of Macao), as it was imprudent to remain in the outer road, both on account of the pirates, and of the lateness of the season. About an hour, therefore, after I had sent Lieutenant Löwenstern to announce to the governor our arrival, and my intention of going into the Typa, I again set our topmasts and yards, and weighed anchor; and at two in the afternoon we moored in the Typa. An English brig of eighteen guns sailed in at the same time with us, from which, as well as from a small Portuguese vessel of war of twelve guns, we received a visit shortly after we had taken in our sails. The English officer acquainted us that the vessel to which he belonged had been a few weeks before at Whampoa, where he had been sent by the commodore of the squadron on this station*, to demand payment of the viceroy of the province

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theless, very considerable, as they charge a high price for every thing, and their demands must be satisfied. It is only by means of one of them that a vessel can get supplied with provisions and other necessaries. They have several agents, some of whom reside in Macao, to look out for any ships that may arrive, and immediately enter into connection with them.

* This squadron, under the command of Captain Wood, consisted of the Phaeton and Cornwallis frigates of forty guns, and of the Harrier brig of eighteen guns.

of eighty thousand pounds, as an indemnification for a Spanish prize captured in the vicinity of Manilla, and which, in a heavy gale, had stranded on the coast of China, and been plundered by the Chinese. It is well known that by the laws of China no ship of war may pass the Bocca Tigris (the mouth of the Tigris), and this was the first example of its being infringed*. The brig had found her way to Whampoa without a pilot, and the captain, with a guard of twelve men, proceeded to Canton to demand the payment of the sum. This daring conduct threw the viceroy into astonishment, and, perhaps, occasioned him some terror; for nothing but the excessive cowardice of the Chinese could have deterred him from noticing the affront. They, indeed, shewed a disposition, after the captain had quitted Canton, of avenging themselves, but this altogether in their customary manner; and I was assured that the viceroy, as an indemnification for this insult of the English captain, had imposed a heavy fine upon the Kohong†, although the members of this body could have no concern in the transaction. Such a step of the Chinese government, at least in Canton, is, I am told, not unusual; but probably these boundless exactions may soon be attended with fatal consequences to the government; for the robbers who infest

* In the Bocca Tigris, protected by two batteries, which, however, have no guns, two mandarines generally come on board to examine the ship's cargo. Two others then accompany the vessel to Whampoa; and on board of this English ship of war the two mandarines had appeared as usual. Upon inquiring what was the ship's cargo the captain shewed them a cannon ball, when they instantly quitted her.

† Kohong, or hong, is a company of eight or ten merchants possessing the privilege of the whole European trade: see more on this subject in the eleventh chapter.

and alarm the southern provinces of China, particularly Canton and Macao, are no other than subjects of the southern provinces of this empire, who, driven to despair by the oppression of the despotic mandarines, have had recourse to this final means of improving their situation.

At three o'clock in the afternoon, Lieutenant Löwenstern returned from the (Portuguese) governor, who received him very well, but gave him to understand, that, as he was not on the best terms with the Chinese government, our arrival occasioned him some uneasiness, and he therefore wished to speak with me as soon as possible. The Chinese desired particularly to know if the Nadeshda was a ship of war, in which case alone she could be suffered to remain in the Typa: if she was a merchant ship intending to proceed to Whampoa, our stay in the Typa could not be permitted, this being a favour only allowed by the Chinese to Portuguese merchant vessels. I went, therefore, the next morning, the 22d November, to the governor, and explained to him that the Nadeshda was certainly a Russian ship of war; but that I was ordered, for the advantage of the American company, to take on board a part of the produce of the Neva's cargo, for which she would hardly have sufficient stowage, and that I should have proceeded direct to Whampoa if that ship had arrived, but must now wait for her here*. The uncertainty of our movements

* It certainly does not appear correct to allow a ship of war to go to Canton for the purpose of taking in a cargo of mercantile goods; though, in fact, this is not very unusual. All nations which do not, like the English, possess such enormous fleets of merchant vessels, constantly make use, in time of peace, of their ships of war for the conveyance of goods to Europe from America, and the East

was as embarrassing to the governor as to myself, and I was obliged to answer the questions which were now put to me in person, on the part of the Chinese, with respect to my destination, by telling them that I should not go to Whampoa, but should remain in the Typa to take on board a supply of provisions and water for our homeward voyage to Europe. This answer I gave the more readily, as both the governor and Mr. Bachmann, a member of the Dutch factory, who behaved with great friendship towards us, assured us that as soon as the Neva should arrive, there would be no difficulty in obtaining permission to proceed to Whampoa: the profits on all trading ships going to Canton being much too considerable to the government, and to the merchants, for them to throw any difficulties in the way of our affairs. The governor was relieved from much anxiety by the answer which I had given to the Chinese, as he would otherwise have been himself reduced to order me to quit the Typa in a few days, and I should have been compelled, until that time, to have received a number of Chinese custom-house officers on board, who might easily have given rise to some very unpleasant circumstances.

The situation of the Portuguese in Macao is particularly re-

and West Indies; not unfrequently under their own flag. One of the chief objects of our voyage was to secure for the future a certain market for the produce of our American colonies at Canton, and to make the first attempt ourselves. This object could not be attained if the Nadeshda did not proceed to Canton. In the Chinese seas we could only shew ourselves as merchant ships; and, therefore, whilst at Macao I did not carry the imperial but the merchant's flag, although the Chinese are too ignorant to distinguish the one from the other, and have not sufficient penetration to see the motive of such a distinction; nor was this ever an object of their inquiries.

strained, and that of their governor extremely unpleasant to him. Although the latter invariably conducts himself with the greatest circumspection, cases still arise in which he cannot give way without entirely sacrificing the honour of his country, already greatly diminished in the eyes of the Chinese. A few months only before our arrival a circumstance happened fully illustrative of this; an account of which may tend to prove that if the Portuguese possessed greater power at Macao, the cowardly Chinese would not dare to treat them with so little consideration, or, to speak more correctly, with so much contempt. If Macao were in the hands of the English, or even of the Spaniards, the shameful dependence of this possession on the Chinese would soon fall to the ground; and, with the assistance of their important possessions in the vicinity of China, either of these nations established in Macao might bid defiance to the whole empire.

A Portuguese resident at Macao stabbed a Chinese, but being rich, he offered the family of the deceased a sum of money to suffer the affair to drop. This was agreed to, and he paid four thousand piasters; scarcely, however, had he given the money, when the affair was represented to the Chinese magistracy, who exacted from the governor that the criminal should be instantly given up. The latter refused, alleging, that as the deed was committed in Macao he was liable to the Portuguese law, according to which he would be punished if they found him guilty. The Chinese, who wished to inflict punishment on the Portuguese, immediately on the receipt of this answer shut up all their booths, and forbad the importation of provisions into Macao; but the governor, who had two years stock of provisions

for his garrison, troubled himself very little with this threat, and still refused to give up the criminal: in the mean time his trial went on; he was found guilty of the murder, and immediately hanged. The Chinese assembled with the intention of endeavouring to seize the perpetrator of the murder whilst on his way to the scaffold: the governor collected his troops, loaded the artillery on the batteries, and awaited the attack; and alarmed at his decisive measures the Chinese withdrew, under the pretence of being perfectly satisfied with the execution of the murderer, and order was immediately restored.

Although the English East India fleet had not yet arrived, the members of their factory had quitted Macao for Canton some weeks before, and were awaiting it there. I was therefore compelled to forego the pleasure of seeing Mr. Drummond their president, with whom I had formed an acquaintance during my first residence in Canton in 1796, but I did not fail to acquaint him immediately with our arrival; and as soon as he learnt that it was my intention to remain some weeks at Macao he very kindly offered me his house, distinguished above all others there for the beauty of its situation, and the elegance of its furniture*; an offer made in such terms, that I should have been guilty of a great injustice to him if I had not accepted it. Mr. Drummond carried his politeness so far, as to cause another building belonging to the East India company to be cleared for

* Mr. Drummond has a large garden adjoining his house, kept up at considerable expence. In this garden is the grotto in which the Homer of Portugal is said to have composed his Lusiad, and which on this account still bears the name of Camoens' grotto.

the use of those officers of the ship who might wish to reside on shore; and Dr. Horner, Mr. Tilesius, and Major Friderici remained there during our stay at Macao. Of the members of the English factory, Mr. Metcalfe, who was married, alone remained here until the actual arrival of the fleet: his wife was the only European female in Macao, and to so well informed a lady, the residence there, particularly during her husband's absence, from whom she is mostly separated all the winter months, must be extremely disagreeable. Nevertheless she appeared perfectly reconciled to her situation, although she knew that she should continue in this lonesome place for twelve or fifteen years longer. Besides the qualities naturally expected in a well educated woman, she possessed a fund of scientific knowledge, the more striking as it is not frequently met with in ladies, and appearing with the more brilliancy in Mrs. Metcalfe, from being accompanied by an uncommon modesty of pretension. She possessed a very beautiful collection of shells, which she had arranged herself, and, according to Dr. Tilesius, with great correctness. Mr. Metcalfe's house was open to all the officers of the Nadeshda, and did not fail of being my constant and most agreeable residence. I regretted very much that the governor, Don Caetano de Souza, spoke no other than the Portuguese language, especially as we both belonged to the same profession: he was captain of the fleet, and had been two years governor of Macao, and had hopes, after the expiration of another year (three years being the term that the government is held) of being removed to Goa, as governor of that settlement. The most important post under the governor of Macao is that of desembargador, or chief justice, of whom the governor himself is not entirely independent. As chief of the senate he has an

important influence over all the concerns of this little state: nor are the relations between these two heads of the military and civil establishments always on the best footing; a disposition which probably was intended at their institution. During the time of our stay at Macao the office of desembargador was filled by Don Miguel Arriaga Bruno de Silveira, a young man of good education, and possessed of considerable knowledge.

Macao is a perfect sample of fallen greatness. Many fine buildings are ranged in large squares, surrounded by court-yards and gardens; but most of them uninhabited, the number of Portuguese resident there having greatly decreased. The chief private houses belong to the members of the Dutch and English factories; who, as their stay here generally continues fifteen or eighteen years, employ all their endeavours not only to procure the best houses, but to fit them up with the greatest taste. The large incomes enjoyed by the English resident here enable them to indulge their inclination to a pleasant and comfortable life, in which they chiefly distinguish themselves from the wealthy Portuguese inhabitants.

Twelve or fifteen thousand is said to be the number of the inhabitants of Macao, most of whom, however, are Chinese, who have so completely taken possession of the town, that it is rare to meet any European in the streets, with the exception of priests and nuns. One of the inhabitants said to me, "We have more priests here than soldiers;" a piece of raillery that was literally true: the number of soldiers amounting only to one hundred and fifty, not one of whom is an European, the whole being mulattos of Macao and Goa. Even the officers

are not all Europeans. With so small a garrison it is difficult to defend four large fortresses; and the natural insolence of the Chinese finds a sufficient motive in this weakness of the military, to heap insult upon insult. It is much to be wished, the existence of Portugal as an independent state being now very precarious, that some European power would take possession of Macao before the Portuguese themselves abandon it to the Chinese; an event which can scarcely fail of taking place, as Portugal is not able to maintain her possessions in the East Indies, and Macao is entirely supported by Goa. This latter place was once in the possession of the English, who would likewise have obtained the other, but for the peace concluded by them with France in the year 1802; the troops destined for the purpose having arrived in the road were, with the governor's consent, to have been landed the same day, when a Spanish frigate arrived from Manilla with an account of the signature of peace*.

The Nadeshda was almost in a state of preparation for our return to Europe, when, on the 3d December, the Neva arrived at Macao. Her crew was in the best possible condition, and she had not lost a single man by sickness either during her long stay on the coast of America, where no refreshments whatever

* An attempt lately made by the English to take possession of Macao with British troops has thrown the Chinese into great consternation, and rendered the government extremely jealous of them. They have endeavoured by chicanery and delay, which have multiplied very much since the English trade was first established here, to revenge themselves for this insult, although it is perfectly certain that nothing but the generous assistance of the English has preserved Macao, and even Canton, from being long since conquered by the pirates, so that the cession of the former to the English would have tended to their own safety.

were to be procured, or on her voyage to China. None even of those had died who had been wounded in an engagement with the savages, a proof not only of the extreme attention paid on board the ship to the health of the crew, but of the skill and unwearied activity of her very meritorious surgeon Dr. Laband. Captain Lisianskoy informed me that he had a very rich cargo of furs on board from Kodiak and Sitka, sufficient, as he conceived, in value, to purchase a lading of Chinese goods for both ships. This determined me to proceed in the Nadeshda to Whampoa, and I applied for the necessary passport, and a pilot; which, as I might have expected, were refused me by the mandarin resident at Macao, on the ground of my having declared on my arrival that I was not going to Whampoa. In order to terminate this misunderstanding as speedily as possible, I resolved upon proceeding myself to Canton, without loss of time; and, entrusting the command of the ship to my first lieutenant, I went on board the Neva. I arrived at Whampoa on the 8th December; and proceeded instantly to Canton. Some difficulties were made with regard to my ship; but as I agreed to pay the customs and other duties usual with merchant vessels, I received, after a delay of some days, permission for the Nadeshda to proceed to Whampoa. Some persons were, however, sent from Canton to Macao to take a nearer view of her, and to examine whether her force and crew were not greater than I had represented them; after which a pilot was immediately sent on board, and on the 25th December the Nadeshda anchored at Whampoa.

I applied to the English house Beal, Shank, and Magniak, having known Messrs. Beal and Shank during my former stay,

at Canton, to secure the sale of our cargo, and the purchase of another, which was impossible for us to effect, as we have no factory established there, without the intervention of some established merchant. On my part, I had more reason to be satisfied with the choice made of their house, than Messrs. Beal and Co. had, that it had fallen on them; the care of our affairs, owing to many different causes, being attended with more unpleasant circumstances than is the case with other ships. Although no obstacle was thrown in the way of the disposal of our goods at Canton, it was still no easy matter to find a merchant in the hong who would take our cargo upon himself, and be answerable for our ships. The oldest among them were shy of entering into any dealing with us, knowing that Russia stood in some communication with China, both as a mercantile, and as a neighbouring and adjoining power. They were too well acquainted with the spirit of their government not to fear that, as this was our first appearance, we should be exposed to many unpleasant circumstances. The endeavours of Messrs. Beal, therefore, to procure us such a security-merchant were long fruitless; for they were very anxious that one of the senior members of the hong should have undertaken it, but these invariably refused. At length a young merchant named Lucqua, the junior of the hong, supported by their credit, ventured to become security for both ships. The cargo of the Neva was sold to him for one hundred and seventy eight thousand, and that of the Nadeshda* for twelve thousand

* At the time of our departure from Kamtschatka there was in the magazines of the company a supply of four hundred sea-otter and seal-skins, which I took on board.

piasters. But the most valuable sea-otter skins were reshipped, each of them being worth two and three hundred roubles a piece at Moscow, while the highest price of them here was only twenty piasters. Of the hundred and ninety thousand piasters, one hundred thousand were paid in specie, and the other ninety thousand the merchant made up to us in tea: they began immediately to convey the furs from the ship to Canton, and in a few days to relade the tea and other effects. By the middle of January we had almost got our cargo on board, and I had already fixed upon the 25th of the same month for our departure from Canton, intending to sail from Whampoa on the 27th or 28th, when a sudden report was circulated that the Chinese government would not allow our ships to sail until special orders were received with regard to us from Pekin. In order to ascertain the truth of this report, I immediately made a demand for a boat to convey the last of our goods on board: this was refused, and I learnt at the same time that a guard had been sent to our ships. The guard did not, indeed, venture on board, but their boat hovered about the ships, preventing all Chinese from going to them, and even the comprador from bringing off our daily stock of provisions. This intelligence quite astonished me; I could only consider these as hostile measures, the origin of which must have been in Pekin. I expressed my suspicion to Mr. Drummond, who set my mind in some degree at ease by informing me that such absolute orders were not unfrequent on the part of the government of Canton; but we sent, notwithstanding, our merchant immediately to the hoppoo, or director of the customs, to complain of this treatment, which betrayed an evidently hostile disposition. We demanded that the guard-boat appointed to

the ship should be instantly withdrawn, it being impossible to prevent accidents from happening while it remained there, which would be attended with evil consequences to both parties; a representation which produced the desired effect, an order being given on the following day for the removal of the guard, and a perfectly free communication being restored.

Anxious as I was to know the cause of the detention of our ships, still I was unable to acquire any positive information about it. The merchants of the hong assured us that the order to detain us some time was merely a precautionary measure of the viceroy's, whose removal was expected about this time; and that as soon as his successor should enter upon his office the vessels would be immediately allowed to sail. This assurance was given me every where, and I felt no more doubts on the subject; but as soon as I learnt that the new viceroy had assumed the functions of his office, I demanded the next day a pass for the conveyance of the last of our goods on board, which was again refused; and it appeared that the present viceroy, as well as his predecessor, did not dare to permit our departure without an order to that effect from Pekin. In the mean time I addressed a letter in English to him, setting forth the injustice of his proceedings, and what might be the probable consequence of it; and as I imagined our ambassador Count Goloffkin would long before this have arrived at Pekin, I laid great stress upon this circumstance in my letter, adding my conviction that he would never allow so insulting a proceeding to pass unnoticed. With this letter I went to Mr. Drummond, who I conceived would not hesitate in taking up our very doubtful affairs with some degree of earnestness. His influence as

president of the English factory, of so much importance to the trade of Canton, is very great; but his personal character adds still more to this influence, by securing him the respect and esteem of the Chinese. With great goodness of heart he possesses infinite uprightness, resolution, and prudence: he is the oracle not only of the English, but of all the Europeans resident at Canton, who, even though their nations should be involved in wars at home, live here in the strictest bonds of friendship. The English have never played so distinguished a part in China as since he has been president of the factory; for in the nineteen years that he has resided at Canton he has acquired not only a perfect knowledge of the character of the Chinese merchants, but of the spirit of their government in this town; and he never failed, even under the most trying and suspicious circumstances, of asserting the rights and dignity of his nation, and at the same time without injury to her interests*.

* The following circumstance, which occurred a few years before, shews with what resolution Mr. Drummond carried himself towards the Chinese, and the knowledge he must have had of their character. It is quite in vain to expect that a request will obtain any attention from them. Never, in the first instance, to ask, but to act, and afterwards excuse yourself, is, as Mr. Drummond once assured me, the only mode of proceeding with the Chinese; and, I believe, that in important political matters this system is still more necessary than in affairs of less consequence. One of the merchants of the hong becoming bankrupt, remained a debtor to the company of half a million of piasters. The government being answerable for the debts of the hong, Mr. Drummond demanded of it the payment of this sum: his representations were made through the merchants of the hong; and it was very natural that they, neither interested in the business, nor caring whether the company ever received their money or not, should not have pressed it with any degree of earnestness. Mr. Drummond, therefore, weary of the fruitless representations of the hong, resolved to go himself into the town,

His expected departure for England, which would have taken place this year, but that the company had not appointed his successor, which compelled him to remain another twelvemonth, was looked forward to with universal regret.

Mr. Drummond took up our affairs with the greatest earnestness. The chief difficulty consisted in remitting our letter to the viceroy, as none can ever be forwarded to him direct, and an audience is only to be obtained upon very particular occasions. The letter was therefore to be delivered, through the medium of the merchants of the hong, by the hoppoo to him; and it was no trifling undertaking to get it translated into Chinese, which must be done by natives, from whom a correct translation can scarcely be expected. Mr. Drummond assembled all the merchants of the hong at his house, and in order to render the transaction more solemn, convened the select committee of the English factory, consisting of Sir George Staunton, and Messrs. Roberts and Pattle. The

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which, as is well known, no European ever enters without danger of being insulted by the people. The merchants, acquainted with Mr. Drummond's intention, hired a party of the mob to detain, and if possible, compel him to return, but he being informed of this proceeding, entered the town at the head of almost all the English resident at Canton, by one of the gates where he was not at all expected. When the people began to collect about him he held up his memorial, demanding, in the Chinese language, to be conducted to the viceroy, and the mob, astonished at the boldness of this proceeding, and at the number of the English, which probably did not exceed twelve people, treated him with the greatest politeness, conducting him to a temple where a magistrate received his memorial, in order to give it to the viceroy. He returned with his suite unmolested; and shortly after the debt was paid, which, but for this resolute proceeding, would have been entirely evaded.

presence of Panquiqua, the chief merchant of the hong, was indispensably necessary, he being the organ of the mercantile interest. Enjoying a property amounting to six millions of piasters, he possesses considerable influence with his chief, the director of the customs; but in other respects his character was a compound of stupidity, vanity, and hatred to the Europeans. Mr. Drummond was greatly afraid that he would not take up this affair; but as it was of importance to have him in our favour, he went previously to him to request that he would be at his house with the rest at three in the afternoon. The honour of a personal visit from Mr. Drummond was what the haughty Panquiqua had never obtained since the former had been at the head of the English factory; but flattered as he must have been by it, his vanity yielded nothing in this instance to his principles. The mean-spirited Chinese was not even ashamed of reproaching Mr. Drummond with interesting himself so earnestly in a case that did not concern, and could only be productive of unpleasant consequences to him; but he experienced the mortification of hearing the worthy Englishman reply, that he had taken up this affair, not only because England and Russia were friends and allies, which made, in a manner, the affairs of the one common to the other; but because he esteemed it his duty to assist us as much as lay in his power, as we had never been here before, and could not but be ignorant of the mode of trade of the Chinese, so different from that of European powers: he added, that he now considered ours as an affair of the English East India company, and should therefore do every thing in his power to terminate this unpleasant business, which could have happened to us no where but in China, as much as possible to our satisfaction. Panquiqua

answered these expressions, which could not, however, have produced much sensation in him, merely by a shake of the head, promising that he would be at Mr. Drummond's with the rest: a promise which he did not keep, but sent some paltry excuse.

After Mr. Drummond had explained to those present the nature of our letter, he gave it to Mowqua, the second merchant of the hong, that he might deliver it to the Hoppoo. Mowqua, rather uneasy at the absence of Panquiqua, was very loth to take the letter, and brought it back the next morning, alleging, that it contained expressions such as no Chinese governor was in the habit of hearing; and instead of it he had brought another full of the most servile expressions, demanding that Captain Lisianskoy and myself should sign it. This we of course refused; at the same time Mr. Drummond advised me to write merely a short letter, setting forth the pernicious consequences that might arise to us from such a delay, and requesting, on this account, a speedy dismissal. It proved, however, that an alteration was still necessary in the letter, at the suggestion, we were told, of the Hoppoo himself, but of no kind of consequence, although characteristic of the mode of thinking, and degree of knowledge of the Chinese. Mr. Drummond had promised the merchants to receive any letters that might come to me from Pekin, and to forward them to Russia. They now required that it should be said in the letter that England and Russia traded together, for otherwise how could Mr. Drummond send letters to the latter? and above all, could it be supposed that he would take such a business upon himself if the two nations were not connected by commercial relations? It was of no consequence

that I assured them that in Europe more liberal ideas were entertained than was the case in China, and that even if Russia had been engaged in war with England Mr. Drummond would still forward my letters there; nor was it necessary that the two countries should have any commercial relations merely to secure the conveyance of a letter. This addition was declared absolutely necessary, notwithstanding all my representations, and we were assured that, upon drawing up our letter in these terms, permission would be granted for our departure: it was likewise necessary to mention the very high or northern situation of Russia, that the viceroy might be enabled to understand that the navigation of the Baltic was stopped in the winter, owing to the ice: an important reason why we should speedily quit China, in order to arrive in Russia before the winter should set in. I did not hesitate to draw up the letter according to their wishes*. After a lapse of six days, during which we received no answer, I requested Mr. Drummond again to assemble the merchants of the hong, and to demand, through them, an answer from the viceroy. He was so good as to carry my wish into execution; and all the merchants, not ex-

* The letter so altered ran as follows:—"After having terminated all our affairs, and being ready to sail, we learn, through the medium of our merchant, that your excellency will not allow our ships to depart. We have the honour to acquaint you that, as Russia lies very high to the north, the consequence of the smallest delay here will be, that we shall not reach the place of our destination this year, upon which account we request you to grant us our passport as soon as possible. If any letters should arrive here for us from Pekin, Mr. Drummond, the president of the English factory, will receive them; England and Russia being upon terms of commercial intercourse, and will forward them to Russia.

"We have the honour," &c.

cepting Panquiqua, appeared at the appointed hour, the members of the secret committee being present as upon the former occasion. After Mr. Drummond had again represented to them the injustice of the proceedings towards us, he demanded, in a very determined manner, that the whole hong should go to the Hoppoo, and remonstrate in strong terms with him upon our situation, it being impossible to assign any plausible reason why permission should not be granted for our departure. Panquiqua observed, that the business must not be hurried. "It is usual," said he, "for the Hoppoo, as well as the governor, to detain every business for three days before they come to any determination upon it, and it will be better to wait." Notwithstanding this, it was at length resolved that the merchants of the hong, with Panquiqua at their head, should go the next day to the Hoppoo, and obtain permission for our departure; but in case he should excuse himself under pretext of having received no answer from the viceroy, they should then proceed to the latter, represent to him the necessity of coming to some speedy determination, and, if he also gave an indecisive answer, immediately demand an audience for me. This resolute conduct produced the best possible effect: the Hoppoo had scarcely heard the representations of the hong when he instantly gave orders for the boat to convey the last of our goods on board, assuring us that we should soon receive our permission to sail. He even came himself a few days after on board the Nadeshda, and enquired for me; and, as I was not in the ship, Captain Lisianskoy visited him in his boat. In his conversation with the Hoppoo, the latter appeared to wish that we should sail shortly, and positively promised him our passports in a couple of days, in which he, in fact, kept his word.

Thus this affair, which might have proved of the worst consequences to us, terminated better, and in less time, than I could have expected. The bold and confident terms of our demand, as well as the interest shewn by the English factory in our favour, contributed, no doubt, a great deal to induce the new viceroy to withdraw his order for our detention. There certainly was none sent to detain us from Pekin; for had it been so, all our representations against the injustice of it would have proved of no avail; the first, as I have already mentioned, proceeded from the former viceroy, who was actually upon a journey through his province when he learnt the arrival of his successor at Canton: and it was precisely at this time that he sent to delay our departure until further orders. It is therefore not impossible that the viceroy, hearing about this time of our ambassador's approach to Pekin, and afraid, lest the permission which he had too hastily given us to trade upon our arrival might prove displeasing to his master, determined, in order to obviate the evil, to prevent, in the first instance, our ships from sailing*. What had drawn upon the viceroy the *ill-will* of his court was not known at Canton: but, according to one of the first instructions brought by his successor, his trial was to take place there, and several persons high in the law were expected for

* Shortly after my arrival at St. Petersburg I received a letter from Canton, acquainting me that twenty-four hours after I had left Whampoa a very positive order arrived from Pekin to detain our ships. Had this come previous to our departure, we should never, in all probability, have reached Russia; for although this may not have been the intention of the government at Pekin, the order to put us under arrest could not have been carried into execution without producing scenes that might have led to acts of open violence.

that purpose; the day before our departure, the viceroy received an order to send his predecessor within three days to Pekin.

I have entered into more detail in the relation of this circumstance than the interest it possesses may, perhaps, have appeared to the reader to deserve: but I conceived it to be my duty to state the fact thus particularly, partly for my own exculpation, as it may have been imagined that something in my conduct might have given rise to this misunderstanding, but chiefly to shew how easy it would have been for the English, had they been at all jealous of our trade with China, to have availed themselves of this opportunity to set us for ever at variance with that country. The least violence on their part would have produced this effect; but that they pursued a very different line of conduct will appear by the above account of their proceedings, nor can I sufficiently rejoice at the zeal and eagerness manifested by them in this business. Had we been detained only twenty-four hours longer we must have fallen into the absolute power of these savages, who have been emboldened by an useless moderation not only to call the polite nations of Europe barbarians, but also to treat them as such.

Dr. Horner found the latitude of Macao in Mr. Drummond's garden by the mean of several observations . 22° 11′ 46″ N.

The longitude by the mean of several lunar observations . . . . . = 246° 22′ 44″ W.

On the 4th of December, Arnold's large time-piece, No. 128, according to the rate assigned it at our departure from Kamt-

schatka on the 4th of October, gave for the longitude of Macao, 246° 27′ 00″.

Pennington's time-piece on the same day .. = 246° 44′ 15″.
The true longitude of Macao is . . . = 246° 22′ 40″.

At Canton Dr. Horner made his observations in the house of the Dutch factory. From corresponding altitudes of the sun, observed almost daily from the 19th December to the 6th February, he found the daily loss of No. 128 to be on the 6th February, 1806, + 19″ 75, on which day it was later than mean time at Greenwich 5^{hs} 48′ 35″.

On the 4th October the daily loss of No. 128 at St. Peter and St. Paul was . . . . . + 21″ 62
On the 14th October it was . . . . + 21″
On the 27th June, 1805 . . . . + 18″ 50
On the 18th April, 1805, at Nangasaky . + 19″ 50
On the 7th Sept. 1804, at St. Peter and St. Paul + 22″ 00

Pennington's time-piece on the 6th February was earlier than mean time at Greenwich . . . . 2^{hs} 08′ 52″
Its daily advance . . . . . — 25″ 73
On the 4th Oct. 1805, at St. Peter and St. Paul — 24″ 50
On the 14th Oct. 1805, at St. Peter and St. Paul — 21″ 00
On the 27th June at St. Peter and St. Paul . — 24″ 50
On the 18th April at Nangasaky . . . — 22″ 00
On the 7th Sept. 1804, at St. Peter and St. Paul — 21″ 00

Arnold's small time-piece, No. 1856, suddenly stopped in the month of June, the preceding year, in the harbour of St. Peter

and St. Paul. At Canton we found a skilful watchmaker, an Englishman, who undertook to restore its rate of going, in which he perfectly succeeded. On the 6th February No. 1856 was later than mean time at Greenwich . . 4^{hs} 25′ 55″

Its daily advance was . . . . 12′ 13″

On the 18th April at Nangasaky . . 29′ 00″

On the 7th September at St. Peter and St. Paul 27′ 64″

Dr. Horner found the latitude of Canton . 23° 6′ 15″N.

Its longitude by the mean of several lunar observations . . . . . 246° 35′ 30″ W

The true longitude of Canton is, taking the meridian distance between Macao and Canton at 17′ 20″

246° 22′ 40″ + 17′ 20 = 246° 40′ 00″ west.

CHAPTER XI.

ACCOUNT OF CHINA.

Introduction—General Remarks upon the Rebellion in the Southern and Western Provinces—Measures of the Government against the Rebels—Considerable Force of the latter—Several united Societies in the Interior of China in Opposition to the present Government, and the Mantchou Dynasty—Kia King, Emperor of China—Conspiracy against his Life—His Manifesto on the Occasion—Fate of the Conspirators—Recent Changes at the Court of Pekin—Late Edict of the Emperor—Indifference of the Officers of the Chinese Government particularly apparent in case of Fire—Introduction of Vaccination—Its Success—State of the Christian Religion in China—Persecution of the Missionaries—Imperial Edict relative to them and their Religion—Confinement of two Russians in Canton—A Hindostan Fakeer there—Account of him—State of European Trade—Extensive commercial Intercourse of the Americans—Goods recommended to be imported into Russia from China—Organisation of the Hong at Canton—Abuses of the Hoppoo or Director of the Customs—Proposal for extending the Russian Trade at Canton—Price of the chief Articles and Provisions—Answers to some Questions of M. Von Würst on the Chinese Administration.

So much has been written upon China, that it is extremely difficult to say any thing new upon this country; nor have I the presumption to imagine that the little information contained in this chapter, the sum of what I was able to collect during my stay at Canton, will add to what is already known of this empire. Neither is Canton the place from which any important inferences can be drawn as to the rest of the country; although the national character (a little refined by constant inter-

course with Europeans,) and the spirit of government, are substantially the same there as elsewhere. The accounts, however, which I am enabled to give from authentic sources of the rebels in the south of China, of the conspiracies against the emperor, and of the late persecution of the Christians, may not be found altogether uninteresting: nor do I conceive it superfluous to add a short relation of the European trade at Canton, together with my opinion how far Russia might participate in this profitable commerce with advantage.

China has experienced, I think, very undeservedly, the good fortune of being every where spoken of in terms of delight and admiration: the wisdom and extreme policy of the government; the great morality of the people; their industry; even their knowledge of the sciences having been mentioned with vast approbation by the Jesuits. There may be many things in China deserving of admiration; but the wisdom of the government, and the morals of the people, however favourably the world may be disposed to judge of them, are far from praiseworthy. The government, it is well known, is purely tyrannical, and on this account cannot be always wise; and the spirit of despotism descends gradually from the throne to its lowest officer. The people sigh under the oppression of these inferior tyrants: self-preservation compels many to dissemble their feelings, and this alone can, in any degree, exculpate the Chinese character*. Barrow justly observes, that the natural character

* The best specimen of a well-concerted deception, affording, at the same time, a proof of the faulty organization of the government, and of its extreme debility, even

of the Chinese must have been greatly altered by their despotic government, and that its maxims have rendered this people, naturally of a good disposition, both deceitful and unfeeling. Some of the hateful traits of the Chinese, such as the murder of their children, which is universally allowed; the scandalous intercourse between parents and their daughters, after having brought them up merely for purposes of prostitution, are sufficiently known, and are not denied, although they have been excused by the great admirers of this people; and in a late work upon China, undoubtedly the best that has been written upon this country, (for Barrow has described the Chinese as he found them, without prejudice or partiality), many passages will be found confirming the works of a very celebrated author, who has been blamed for too harsh an opinion of the Chinese. Barrow's description sufficiently proves how corrupt, cruel, and ignorant a nation they are; and even the little which I have to say upon this subject, and I advance mere facts, is by no means in favour of the boasted purity of their moral character. It is evident that the government, although some brilliant points in their laws and maxims of state may give an advantageous appearance to the whole, has not attained to that degree of perfection which they would willingly persuade us; and how, indeed, can a government be considered as perfect, that patiently submits to continued rebellions in the country, which are frequently the mere effects of

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at the time of the powerful Kien Long, is in Barrow's voyage from Cochin China, p. 251—254, of the original edition in quarto, on the occasion of an expedition of the viceroy of Canton, Foo-chang tong, in the year 1779, against Tonkin.

hunger. These insurrections are alone a sufficient proof of the imbecility of the Chinese government, even under the Tartarian dynasty, although the latter have distinguished themselves, in the various periods in which they have governed China, by more strength and activity than the original weak and timid Chinese monarchs. After trying innumerable cruelties, they have as yet neither discovered nor adopted any sufficient means to check this evil. It certainly is no easy matter for a government to rule over so large and populous a country, so as to dispense content and prosperity throughout the whole of it; but it is precisely this circumstance that the world so much wonders at, and which has brought us acquainted with the Chinese. A nation of upwards of three hundred millions of people, governed by the same laws, and united under one sceptre, in a constant state of tranquillity, must certainly excite the most lively ideas of the wise political maxims of the government, and of the good and submissive disposition of the people; but it was owing to a variety of fortunate circumstances that so many millions were subjected to one crown, nor is this any proof of the wisdom of the government. The happiness and tranquillity of China are only imaginary, and we are entirely deceived by appearances: the very circumstance of the country being so extremely large and populous renders it difficult to produce a general revolution, for which, every one agrees, the popular feeling is perfectly prepared; and a man will long be wanting in a situation to place himself at the head of a party, and conduct the undertaking. No where perhaps is it less probable to meet with men possessing those extraordinary and distinguished talents and powers of mind necessary to direct and produce a change in the existing government than in China. Their moral and

physical education, their mode of life, their very form of government, render the appearance of such men extremely problematical, if not altogether impossible *.

It is, however, generally known that the seeds of discontent have been scattered throughout China. When I was in this country in 1798, three provinces were in a state of insurrection, although the wise Kien Long at that time filled the throne: there are now many more so; and almost all the south of China is under arms. Discontent prevails every where; and in the interior of the empire, even in the vicinity of the palace, disturbances frequently occur; the only measures which government adopts to terminate them being such as openly conduce to make the evil greater; for they prove too evidently its weakness and want of power, notwithstanding the overbearing and ridiculous tone which it employs in its edicts, and leave no doubt of the approaching dissolution of a monarchy to which even the most enlightened Chinese now begin to look forward. After some fruitless military operations, they have had recourse to bribery: those of the rebels who deliver themselves up receive a reward of ten taels, and are obliged to enter the emperor's service: if they are of any rank they obtain some honourable mark of distinction, consisting, as is well known, in the knot of their caps †. The consequence of such a proceeding is, that

* Chu, who in the year 1355 drove the Tartars out of China, and began in 1368 the twenty-third, or the Ming dynasty, was a Chinese by birth, and of low origin.

† One of these leaders who delivered himself up was, for a long time, bargaining with the government. He demanded a knot of higher distinction than they

the poorest, in order to obtain the reward of ten taels, deliver themselves up, and after receiving their money avail themselves of the first opportunity of returning to the rebels. This reward, too, induces many to serve first with the rebels, and then to go over to the Chinese, being certain of forgiveness and of the stipulated remuneration. Those only who are taken with arms in their hands are hanged, and their heads set out to view on houses constructed for the purpose*. But so weak are the measures adopted against them, that this very rarely happens.

This unnatural war, now become so universal as to render it impossible for the government to terminate it with any advantage to itself, might, as I learnt at Canton, have been stopped in the first instance, under the most favourable circumstances, but for some intrigues of the court which prevented it. The former admiral, Van-ta-gin, a man of considerable experience, was suddenly deprived of the command of the fleet, although by his undaunted courage and activity, and by constantly keeping the sea, he had become extremely formidable to the rebels, over whom he had obtained several decisive victories. His good fortune and rare qualities excited the jealousy of the ministry, and the command was transferred to one of their favourites: but as Van-ta-gin's services were considered necessary, he was not permitted to resign altogether, and was obliged to remain as second in command in the fleet, which immediately put to sea

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were disposed to give him; but at length, as he persisted in his demand, the government was compelled to grant it.

* Some of these houses we saw at the entrance of the port of Macao.

under the orders of the new admiral. The rebel squadron was discovered in a bay, and hemmed in by the imperialists. Their admiral, who foresaw nothing but the total overthrow of his whole fleet, seized the only possible means of averting the threatened danger: he demanded peace, and offered to pass over with his whole force to the imperialists, and to deliver all his ships, upon the arrival of both squadrons at Canton, to the Tay-tock, the imperial admiral. Van-ta-gin finding his admiral disposed to accept the terms of peace proposed by the rebels, tried every means in his power to deter him from it: he represented to him that their offer ought upon no account to be accepted, nothing being more certain than that their fleet, the moment it was released from its precarious situation, and was again in the open sea, would instantly separate from them, when it would be altogether impossible to compel them to go to Canton. This was the most favourable opportunity of attacking them, for their total overthrow was inevitable; and the surrender of the fleet, the chief force of the rebels, must infallibly produce that of all the other scattered parties, and thus terminate so destructive a war. The admiral, however, paid no attention to Van-ta-gin's representations, but concluded a peace with the rebels: both fleets sailed together out of the bay; and during the very first night the latter parted company, as Van-ta-gin had foretold, and prosecuted the war with redoubled fury. Van-ta-gin is said to have died, unable to endure the mortification of the failure of this campaign, and Tay-tock fell into disgrace. Since this unfortunate expedition, which took place in May, 1805, the government has not ventured to send another fleet against the rebels, who are now become much more powerful, nor has it any thing that can be called a naval force, except occasionally a

small squadron of from eight to twelve ships that cruise about in the Tigris, under the command of a Mandarine of inferior rank.

The rebel fleet consists, I have been assured, of four thousand vessels: the larger class are of two hundred tons, with a crew of from two to three hundred men, and carrying between twelve and twenty guns, six, twelve, and eighteen pounders: their smallest vessels are of thirty tons, and carry from thirty to fifty men. If they knew how to avail themselves of this force with skill there can be no doubt that they would already have obtained possession of Macao, which, on account of its situation, would prove of infinite importance to them. Indeed, they would already possess it if the Portuguese did not: and the most advantageous offers have been made to the governor on the part of the rebels to induce him to afford them his support. These, of course, have been declined, and the Portuguese, on the contrary, do all that their moderate force will admit to keep the rebels at a distance from Macao and Canton, maintaining, for this purpose, continually two armed vessels cruising against them, a service the Chinese scarcely repay with thanks. One of these vessels succeeded in capturing and bringing into Macao a large pirate vessel, having one of their principal chiefs on board, after a doubtful contest, in which the whole of the crew, except forty men, were slain. The prisoners were immediately executed: the viceroy, upon this occasion, published an edict, declaring the prize to have been taken by the Chinese, and making no mention of the Portuguese, although the former had no share in the engagement, and the whole

honour of the capture belonged exclusively to the latter. The Chinese government are indebted to the European ships lying in the vicinity of Canton that no attempt has hitherto been made upon that town. A few weeks before our arrival the rebels had landed near Whampoa, and plundered and burnt a small town there: nor are any safe against their incursions, except such as pay them a tribute, the amount of which they collect every six months. The proprietors of Chinese merchant ships pay a yearly sum of money, for which they obtain passports that are every where most scrupulously respected by the different bands of pirates; and I was informed by an Englishman who remained five months in their hands, that the captain of one of their vessels was obliged to pay five hundred piasters for having detained a ship provided with one of these passes. Hitherto they have not ventured to establish themselves on the continent of China, though it is well known that they have many advocates amongst the people, who supply them with provisions and ammunition: and that they might effect it with facility if they were conducted by any active and intelligent leader, who knew how to avail himself of their forces. They have possession, however, of the large island of Haynan, of a great part of the south-west coast of Formosa (a severe loss to the empire, Formosa being the corn magazine of Fokin), and of a part of Cochin-China. They had established themselves in Tonkin; but when the king of Cochin-China took possession of that country he succeeded in expelling them thence, and the coasts of China have been since particularly exposed to their depredations. They are now, as I have heard, returning to Tonkin, the inhabitants of the conquered province being dis-

satisfied with their government. These rebels, although so alarming to the empire, have as yet no leader; but the chiefs of the different parties all act in concert one with the other *.

I was assured that throughout China, and especially in the southern and western provinces, there is a sect, or, to speak more correctly, an association, consisting of all classes of malcontents. The members of this very numerous company call themselves Tien-tie-koe, heaven and earth. Every person upon paying a trifle is admitted into it, and they have private signals, by means of which they know their members. The rebels are said to be very much supported by the members of this association, and to receive every intelligence necessary to their preservation. The Tay-tock himself is supposed to belong to this sect, and to have acted according to the principles of it in allowing the rebel fleet that was in his power to slip through his hands. A similar sect, called Pelui Kiao, "enemies of the strange religion," is said to exist in the north of China. One of the chief motives of their assembling is discontent with the present government, to which is added an hatred of the origin of the imperial family, who, it is well known, are not Chinese.

The present emperor, Kia King, the fifteenth son of Kien Long, is far from possessing his father's spirit. Without talents

* According to the latest accounts from China, this rebellion is spreading every where. In a letter I have received, dated the 14th February, 1810, I find the intelligence that, towards the latter end of 1809, a considerable fleet of pirates sailed up the Tigris as high as the first bar, and blockaded the river, until the English, at the request of the Chinese government, drove them away.

or energy; without any love for the arts and sciences, he is said to be of a cruel disposition; and this he has frequent opportunities of indulging in a country which he rules with so despotic a sway. He is also accused of being much addicted to drunkenness, and to another very unnatural vice. These qualities, whose influence upon the affairs of government is very visible, have likewise excited the jealousy of his elder brothers, some of whom are alive, and conceive themselves to have a nearer right to the throne, and make his reign very insecure. Some years ago an attempt was made against his life, and in 1803 a similar conspiracy was discovered, when the emperor narrowly escaped. The latter conspiracy was particularly distressing to him, it being found upon examination that the chief people of his court, and even some of his family, were concerned in it. He therefore thought it prudent to put a stop to all farther enquiries into it; and the manifesto published on the occasion is, indeed, remarkable, not only on account of the style, but of the prudence with which he endeavours, in a neat and clear manner, to get over so bad an affair. It was judged proper not to bring the suspected persons to trial, on account of their rank and importance; but it was well known that several of the principal characters in the empire were accused of having a share in the conspiracy. It would have been a clear proof of his weakness to have declared them innocent, and a Chinese emperor dares not allow his subjects to form such a judgment of him. The emperor therefore stated in his manifesto, "that the deposition of the assassin must be false, because it was quite impossible that those whom he considered as the most faithful servants of his throne could have rendered themselves guilty of participating in so shocking a crime.

That an assassin must be considered like a mad dog who makes his attack upon those he meets, but without drawing others to join with him in such a purpose. There is even," says the manifesto, " a bird that eats its own parent without being driven to it: and what accomplices could he find in so unnatural an act?" In the manifesto four of his courtiers are mentioned by name, in terms of particular gratitude, as having seized the assassin, and saved the emperor's life at the imminent risk of their own: and the other officers who were present are specially reprimanded for having stood quiet spectators during the attack; the emperor expressing his surprise that, among the hundred people who surrounded him at the time, only six should have felt any anxiety for his life. " Can any thing," he says, " be expected from them in ordinary cases when they appear so indifferent in one of such consequence? It is this indifference and not the dagger of the assassin that distresses me." The emperor concludes with the melancholy observation: " that notwithstanding his constant attention to the welfare of the state, his government may still be culpable, and promises to improve the administration, and to endeavour to give no fresh cause for such dissatisfaction." The criminal, whose name was Chin-te, a man of very mean birth, was sentenced to die by a long and painful death*. His sons, Lon-ear and Fon-ear, were strangled in consideration of their tender years; (the eldest being but ten, the youngest nine years old,) and all the other conspirators were acquitted by the publication of this manifesto. The Pekin Gazette gave an account of the execution of

* The sentence upon Chin-te was, that he should be flayed alive, and then cut into little pieces.

Chin-te and his sons, but said nothing of the execution of one of the princes of the imperial family for having been at the head of this conspiracy. This prince was the son of Hotchung-tang*, prime minister to the deceased emperor Kien-long, whom the present emperor, shortly after the death of his father, had himself accused and sentenced to death for crimes alleged against him, but, in reality, in order to obtain possession of his boundless property. His son, who, according to the wise laws of the Chinese government, ought to have shared his father's fate, was at that time spared, only because he was married to the sister of the present emperor. His fate, however, was now unavoidable.

The emperor cannot have been serious in the promises he held out in his manifesto of improvement, for during our stay at Canton we learnt, that one of his favourites who had for many years experienced his kindness, a favourite in the most shameful sense of the word, had fallen into disgrace. He had obtained so much authority over the feeble monarch, that the most important concerns were left to his management, and the chief offices of state and marks of honour were, without compunction, sold to the highest bidder. The occasion of his disgrace was not known; but it saved the life of the late Fouyon, or civil governor of Canton, a very honourable man, against whom a most scandalous intrigue was carried on under the protection of the

* In Barrow's works is a list of the crimes on which Hotchung-tang was accused personally by the emperor. One of them was, that he had built himself a house of cedar, a species of wood only to be used in the construction of the imperial palaces. His other crimes are not of more importance.

favourite; and a merchant recently arrived from Pekin, whom I frequently saw at Mr. Beal's, said, that the emperor since this disgrace had firmly resolved upon introducing more order, and particularly a more strict administration of justice into his empire; for which purpose he had issued an edict, allowing every one of his subjects to address himself direct to him, and lay his complaints before him. As there is no post in China except that which runs between Pekin and Canton, it was not very likely that many memorials would reach the throne from the distant provinces; but the edict was probably dictated in an hour of repentance, when the emperor was desirous of shewing his subjects the parental care he takes of them: many of them, however, know that his will in this respect cannot be carried into execution. The situation of the people would be much improved if the viceroys and inferior officers of government could be brought to protect them, and not allow them to experience so much ill treatment. Barrow mentions several instances of the cruelty and barbarous usage to which the people are exposed from their superiors.

Of their carelessness and indifference for the lives of the poorer class of people we had a sufficient proof on the occasion of an accidental fire. On the 13th December a fire broke out in Canton, on the western bank of the Tigris, directly facing the European factory, which raged with great violence from six o'clock until midnight; and if Mr. Drummond had not instantly sent fire engines, the whole row of buildings on that bank of the river would, in all probability, have fallen a prey to the flames. Although fires are very common in Canton, there are no means of precaution adopted to extinguish them. The Chinese never

make use of engines; but when any fire breaks out some thousand men assemble and set up a horrible yelling, without affording any real assistance, or any being, in fact, expected from them. There is only one class of men supported by the government to assist in such cases, who are called servants of the mandarins, and their duty is to prevent the streets from being blocked up by the concourse of people. Neither the viceroy nor any of the chief magistrates of the town are even present: only a mandarin of inferior rank is bound to be there, and his presence is of but little moment; nor can he, according to the maxims of this despotic government, have any interest in even insisting or obtaining the little respect due to him; the loss of thousands being only so far interesting to a mandarin, that it leaves fewer subjects from whom they can extort money. The government adopts no means whatever to preserve the people against the effect of the typhons that rage continually on the coast of China; and some weeks previous to our arrival at Macao several thousands (the number was said to amount to ten thousand) perished during one of these hurricanes in the Tigris; yet it was scarcely spoken of, although not a month had elapsed since this shocking accident had happened; or when mentioned, it was only as a common occurrence perfectly in the order of things.

How thankful ought these unfeeling people to be to the English, if they were capable of any sentiment of gratitude, for the introduction, since the year 1805, of vaccination among them, and for their attempts to spread it throughout the empire! Dr. Pierson, the second physician of the English factory, has rendered himself by this act deserving of infinite praise; for in

no parts of the world did the small pox commit such ravages as in China. But I doubt very much whether this humane proceeding will ever obtain their acknowledgments; and am convinced, on the contrary, that if Dr. Pierson should have the misfortune, by any accident, to lose one of his Chinese patients, although he has already been the means of rescuing thousands, and the lives of millions may in future be saved by him, he would nevertheless, by their well-known barbarous laws, be severely punished if they could only get him into their hands. On the days appointed for the operation there are always a number of women with their children waiting to receive the benefit of it in the halls of the English factory. On these occasions he seldom vaccinates less than two hundred children, and, it need scarcely be mentioned, entirely free of all charges. In order to remove any probable prejudice which the Chinese might harbour against the operation, Dr. Pierson has written a small book on the history and advantages of vaccination, wherein, at the same time, the necessary treatment during the disorder is pointed out. Several thousand copies of this work, translated by Sir George Staunton into Chinese, have been distributed amongst the people*: and as it could not be printed without the name of some native Chinese, it bears that of Nunqua, one of the merchants of the kohong. The vain Panquiqua, of whom frequent mention is made in the preceding chapter, sought to obtain this honour; but Mr. Drummond selected Nunqua, he having been the first to propose himself. The Chinese physicians are very much against the operation, and take infinite pains to

* Dr. Pierson was so kind as to favour me with a copy of this literary curiosity.

suppress this useful discovery, or, at any rate, to prevent its propagation as much as possible; but at the time I am speaking of, it had obtained so firm a footing, that these ignorant people will scarcely be able to effect their purpose. The government, although it tolerates vaccination, takes no step whatever to promote it: but their very sufferance of an innovation is a proof of their perceiving its advantages. Dr. Pierson, immediately on the introduction of vaccination, instructed four Chinese in the mode of performing it, and these were as actively employed in propagating it in the surrounding country, and in the town of Canton, as he had been in the suburbs, and at Macao: and he recently received letters from Nankin acquainting him with their having discovered the same species of disorder in the cows of that place.

There can be no doubt that the honour of having introduced the cowpox among the Chinese belongs exclusively to Dr. Pierson. A few months later, and he would have been robbed of it by Dr. Balmis, a Spanish physician, who came expressly for the purpose from Manilla to Macao in the month of September of 1805, not knowing that the English were beforehand with him. Dr. Balmis was sent in 1803 by the Spanish government to introduce the cowpox into South America, and the Philippines: from thence he proceeded to China*; and although the good intention of the Spanish physician loses nothing by his having been preceded by Dr. Pierson,

* Dr. Balmis quitted China to return to Europe about a fortnight before our arrival at Macao, in the ship Le Bon Tems, bound to Lisbon.

yet I am convinced that the introduction of vaccination into China was more likely to succeed with the latter, the favourable situation of the English naturally removing many of the difficulties which he would have had to encounter.

The European missionaries have been striving for centuries to spread the Christian religion in China; but it seems likely to experience very shortly the same fate in that empire as it already has in Japan, being latterly exposed to fresh persecutions on the part of the government; nor is this so much to be wondered at, as the spirit of conversion among the missionaries, whom the experience of several centuries (the first missionaries having reached China in the year 1577) might at length have convinced that their labours, even at the most favourable periods, were never attended with success. The number of converted is so extremely small as to stand in no kind of proportion with the enormous population of this extensive country: and there are probably not so many Christians in China as there are children murdered daily in the empire*. Notwithstanding this, the catholic priesthood continue to send almost every year their missionaries to China, although they cannot but know that the fondness for literature which has actuated some of the emperors, but more particularly the ignorance of the people, is the only reason of their being tolerated.

The emperor had long been dissatisfied with the exertions of

In Pekin alone, according to Barrow's calculation, nine thousand children are murdered annually.

the missionaries to convert his Tartarian subjects, as the manifesto published on the occasion sufficiently evinces: but the present persecution of the Christians was owing to the following circumstance. An Italian missionary, named Adjudati, sent to one of his friends in Canton a plan which he had designed of a certain district of China, where he had resided for some time. On the confines of Pekin all travellers are very strictly examined; and this messenger was searched, who, besides the chart, had several letters from different European missionaries to their friends in Macao. In all probability he had been instructed to take more than ordinary care of these papers, as he at first asserted that he came from another province; but no sooner was the falsehood of his story discovered, than he fell into suspicion, and being arrested with his letters and the chart, was sent back to Pekin, where he was put to the torture to make him confess who were his employers. The messenger pronounced the name of Adjudati, who was instantly thrown into confinement; and his house, as well as all those of the other missionaries, underwent the strictest examination. Suspicion being now entertained of all the missionaries, Adjudati's letters were sent to the Russian bishop, who, however, avoided the disagreeable office attempted to be imposed upon him, by declaring that he was not possessed of sufficient knowledge of the different languages in which the letters were written to be able to give any correct account of their contents. This declaration of the Russian bishop was the means of saving many, and they have gratefully acknowledged it. The religious books translated by the missionaries into the Chinese and Tartar languages were not only confiscated and burnt, but their zeal in conversion was held up as a crime. I am in possession of a translation made by Sir George Staunton of the

imperial edict, enforcing these measures against the missionaries*, which is drawn up with some cleverness. Several of the religious doctrines contained in the book translated by the missionaries are turned into ridicule, and declared to be in the highest degree absurd. They are accused of striving to convert the Tartars to the Christian religion, which the emperor says in his edict "must be, to judge of it by the religious books of the

* Sir George Staunton, who accompanied his father in Lord Macartney's embassy to Pekin, and who is now a member of the English factory at Canton, possesses, perhaps, a more extensive knowledge than any European of the Chinese language. In his first voyage to China, and during his short residence there, he laid the foundation of his knowledge of the language, in which, even at that time, although he was but twelve years old, he made considerable progress. His constant residence since that period in China; his diligence, perseverance, and natural talents, lead to the expectation that he will acquire an accurate knowledge of this most difficult language. He has a considerable Chinese library, which he is constantly increasing, having a most favourable opportunity of doing it, and sparing no expence. From the Pekin Gazette, which appears every other day, and which he contrives to procure regularly, although, according to the strict laws of the Chinese, the sale of Chinese books and newspapers to foreigners is forbidden, he translates all the important articles, such, for instance, as the imperial edicts, and the accounts of any events that have happened in the empire. The publication of a collection of original facts and documents, with notes, by such a man as Sir George Staunton, would throw great light upon the present state of China. Sir George is now employed upon the translation of another work, which must excite considerable interest, and contains notes on an embassy to Tartary and China in the year 1713. The work likewise contains a description of Russia, and is accompanied by a chart. In the account of this journey, which was published by order of the government, are the instructions given by the emperor to his ambassador. But the most important work the learned world has to expect from Sir George Staunton is a translation of the whole Chinese code of laws, upon which he has been employed for some years. His knowledge of the Chinese language renders him a particularly useful member of the English factory.

missionaries, as ridiculous as even those of Foe and Taosse*. The story circulated by them among the Tartars of one Pei-tsee, a Tartar prince, is made particularly laughable. This prince, partly owing to his bad conduct, but chiefly for paying no attention to the pious exhortations of his spouse Fo-tsien, a Tartar princess, is seized and conducted to hell by a legion of devils, where he is left to swim in a sea of eternal fire. "The names of Pei-tsee and Fo-tsien could only have become known to the Christian missionaries in their constant intercourse with the Tartars, and the absurdity of Pei-tsee's fate is too palpable." The emperor renders equally ridiculous the story spread by the missionaries of St. Ursula, whose father punished her disobedience with death, at which Tien-chee (the lord of heaven and earth) was so much offended, that he deprived him of life by a thunder-bolt. "This history," says the manifesto, "should serve as a warning to all parents not to oppose the intentions and purposes of their children, which is in direct contradiction to reason and social order, and is as dangerous as the blind fury of a mad dog." The emperor concludes his manifesto by warning the Tartars against the missionaries, and recommending them to continue faithful to their own religion, laws, and customs. To prevent, however, the evil as much as possible, he appointed a commissary, to keep a watchful eye upon the missionaries. Adjudati was sentenced to be banished to Tartary; and another Italian missionary named Choisin Salvatti, who travelled about the country without the permission of the government, and

* The religion of Foe has the most followers in China: it came originally from India; the sect called Taosse was introduced shortly after the time of Confucius: its followers call themselves "Sons of the immortals."

who was taken not far from Canton, is now said to be in confinement there. I was told also of a Pole who was seized on the confines of the empire, and suffered a most dreadful martyrdom. This edict was immediately followed by a strict search after the Christians; and those who are found guilty of the crime of having adopted this religion are compelled to abjure it, and in case of refusal instantly executed. Two principal mandarins, relations of the emperor, are the only persons who have escaped death on refusing to abjure the Christian religion, and they were banished to Eleutic Tartary. The Abbé Mainguet, a French missionary, who remained in Canton during our stay there as agent to those residing in China, declared that the persecution of the Christians was not now so severe, although the missionaries who were allowed to remain in Pekin were constantly watched with the strictest attention, and the entrance of any others into the interior of China positively refused. In the early part of January of this year, two French missionaries arrived at Canton on their way to Macao, where they had resided five years in expectation of permission to proceed to Pekin. This they at length obtained, and set out on their journey; but they had scarcely reached the vicinity of Pekin when they received orders to return, in consequence of the disgrace into which the missionaries had fallen. During their two days stay at Canton they were not allowed to land, none but their friends and acquaintance being permitted to visit them; and on their vessel was written in large characters, that they were sent back to their own country by order of the emperor. In other respects they were satisfied with the treatment which they experienced from the Chinese, who, as they said, had not kept a very rigorous guard upon them during their journey, which they performed entirely

at the emperor's expence, and which would have really been very pleasant to them if their object had not been entirely frustrated. In all probability they will return to Europe, as it is now become impossible to attain it.

Canton is particularly interesting to strangers as a great commercial mart, on account of the people assembled here from all parts of the globe. Besides Europeans of all nations, there are people of all the trading countries of Asia; Americans, Mahomedans, Hindostanees, Bengalese, Parsees, &c.* Most of these come by sea from India to Canton, and return in the same manner. Many have their agents at Canton, who remain constantly there, and do not, like the Europeans, pass the summer at Macao. The Mahomedan merchants resident at Canton, although equally strangers to the Chinese with the Europeans, are allowed to go into the town, and I was told by one of them, a sensible man who spoke very good English, and whose account was confirmed to me by several other persons, that there are two Russians there, whose residence is of a compulsory nature. They have been at Canton these five and twenty years, and will in all probability terminate their existence there. The Mahomedan knew them both very well: and according to his description, one of them is a handsome, tall man, whose behaviour evinces a good education. On his once asking him by what accident he came to Canton, his

* Descendants of the ancient Persians, who at the time of the introduction of Mahomedanism into Persia quitted their country, and established themselves at Bombay. They follow the doctrine of Zoroaster. They have also settled in the Mozambique, where almost all the trade is carried on by them.

only reply was a flood of tears; an answer which sufficiently proves that he does not belong to any inferior class of people. They are neither of them kept in confinement, but allowed to walk freely about the Tartar town, taking care, however, not to proceed beyond its boundaries. One of them, about four years ago, was compelled by the viceroy to marry; they were both apprised of our being so near by the Mahomedan; but much as the idea was impressed upon my mind, I thought it too daring an attempt to endeavour to speak to them, or to release them from their confinement.

The Mahomedan, with whom I had formed an acquaintance, procured me several interesting anecdotes of a singular, and, in his way, extraordinary man, who, during our stay here, affected to practise in Canton the virtues of a saint. He was a Hindostanee by birth, a native of Delhi, and of that class of people whom the Indians call fakeers. They wander about the country, exciting first the attention and admiration of the people, and at last their devotion, by their seeming piety and contempt of all earthly things. This fakeer had been ten years travelling about the eastern parts of Asia; in Pegu, Siam, Cochin-China, and Tonkin. From the latter place he had come the preceding September to Macao; and upon his arrival, refusing obstinately to give any answer to the questions that were put to him, he was thrown into confinement. After bearing every indignity which they could inflict upon him for the space of five days, with the greatest indifference, he was at length liberated, and proceeded to Canton. I saw him pacing slowly up and down the streets, or standing for hours together at the corner of a house, surrounded by a crowd of spectators, and exposed to

the constant insults of a number of unruly boys, who scratched, pinched, and twitched him, and threw orange-peel at him, without exciting the least anger in him: on the contrary, he gave them fruit and money. The Mahomedans resident in Canton, who considered him as a real saint, and treated him with the greatest respect, supported him with money. According to my friend's accounts, which may very well be exaggerated, he possesses no moderate share of talent, speaking the Persian and Arabic languages with fluency, and being particularly skilled in the court dialect of Delhi. He only visited the Mahomedans resident here, and if any one asked him to sit down he instantly quitted the house, and never returned: for six years he had lived entirely upon leaves and roots; but at present he ate any thing, but always most sparingly. His principle was perfect independence, and all his endeavours, as he said, tended solely to the command of his passions. To lose his patience and appear angry he considered as the greatest misfortune that could befall him; and yet he sought every opportunity of putting it to the proof, bearing with the most heroic stoicism every hardship to which he was more than commonly exposed. Wherever he stood he appeared like a perfect statue, never stirring any part of his body, or in the least altering his countenance, however he might be provoked and annoyed: only casting his eyes to the ground if the people looked too steadily at him. He bore both heat and cold in a most exemplary manner: in the months of December and January the latter is very severe at Canton, the thermometer often falling below the freezing point*, and yet he went about

* On the 22d December it froze so hard at Canton that ice was sold about the streets. The Chinese purchase ice with eagerness, believing, that when dissolved it

the streets without the least covering. In appearance he was a well made man, rather above the common stature, with a brilliant eye and regular countenance. The colour of his body was a dark brown, like that of the northern Hindostanees, and his black hair curled very strongly. He went entirely naked, with the exception of a coarse piece of linen that hung from his waist to the middle of his legs. According to my friend the Mahomedan's account, there was nothing he avoided so much as the attention of the people, and he therefore never remained long in the same place, but travelled constantly from one to another; and yet his daily appearance in the streets was a sufficient proof that this fakeer's chief object, like that of all other charlatans and religious buffoons, was to excite attention. His great forbearance and self-denial of all physical enjoyments is made up to him by pleasures of another nature, of which, indeed, those only can judge whose inclinations are sufficiently perverted, but which must possess infinite charms to such a giddy-brained fellow as this. I was not a little astonished when, a short time after my Mahomedan friend had entertained me with the account of this extraordinary man, he proposed to me to convey the saint with me to Russia. The expences of his voyage there he would defray in common with the other members of his religion at Canton, and he appeared to entertain no doubt that the fakeer would play a brilliant part in that country; nor was he a little mortified when I positively refused to accede to his request.

The European trade in China has experienced many changes

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is a sure remedy against the fever so common in summer. They therefore preserve it carefully in bottles, and use it when sick as a medicine.

during the last twenty years. Before the French revolutionary war, every European nation, with the exception of Russia and Germany, had a share in the very profitable commerce with Canton; yet the exportation from China to England, since the commutation tax in 1784, was much more extensive than that to all the other countries of Europe. At that time the Americans, recently become an independent people, commenced a trade with Canton; in 1789 they sent fifteen ships there, and their commerce has gradually increased in the same proportion as that of other nations, with the exception of the English, has declined. The English trade cannot, however, as was at first feared, receive any injury by this apparently dangerous concurrence of the Amercians, all the Chinese goods shipped on board of English vessels being consumed either in England, where the demand for tea is well known to be enormous, or in their extensive colonies in the East and West Indies, in America, and New Holland.

With respect to the commerce of the other European powers with China, the Dutch, next to the English, formerly sent the most ships to Canton; though seldom more than five ships annually arrive there, much as the vicinity to so rich a colony as Java (to say nothing of their other possessions in Malacca, Banca, Sumatra, and Borneo, which produce tin, pepper, birdsnests, and other articles for the Chinese market), might have given consideration to their trade with China. Since 1795 they have sent no ships to Canton: the factory is, however, still kept up, in expectation of better times, and its members, six in number, are annually paid. Although they carry on no business whatever, they go, according to ancient custom, to Canton in October, and return in February to Macao.

The French never carried on their trade to Canton with any spirit, and the little they had has quite ceased since the revolution.

The Spanish trade to China ought to have been very considerable, owing to the vicinity of the Philippines; but they seldom send more than one or two ships annually there, and frequently none at all. Since their war with England their commerce has stopped altogether, though from Manilla they send a few small vessels to Emouy, and the south-east coast of China.

Considering the great advantages the Portuguese enjoy by the possession of Macao, by which they avoid the chicanery of the Chinese custom-house, and other government officers, and the expensive duties paid by the ships of all nations at Whampoa, their trade ought to be very flourishing. Nevertheless it is confined to the sending of two or three ships annually to Europe, and of five or six to Bengal. The cargo of the latter is, besides, not their own property, but is shipped by the English in Bengal, and merely conveyed under the Portuguese flag to Macao.

The trade of Sweden with China has been in a very tottering state since the commutation act in England, and the war with Russia in 1788, during which the king exacted large sums from the Gothenburg company. They never sent at any time more than three ships to Canton, and since this act only two, and in some years one, or none at all. In the present year none arrived from Sweden, and I am now told that the Gothenburg company has ceased altogether.

The Danish trade is very regular, and carried on with great exactness and economy. They never sent, however, above two ships to Canton in the course of the year.

The fate of the Austrian imperial East India company at Ostend is well known. Since that time ships have indeed been seen at Canton under Austrian colours, as well as under the Ragusan, Genoese, Tuscan, Hamburg, and Bremen flags. But they are always on account of English merchants, who, as this trade is a monopoly of the English East India company, are not allowed any share in it.

This short sketch will shew that the commerce of the English and Americans alone is of any consequence, that of the Americans in particular having greatly increased *. The vessels which they

* According to accounts received this year (1810) from Canton, several circumstances have occurred which may prove very injurious to the commerce of the English at Canton. Since the sale of English manufacture on the continent has become so difficult, the English East India company have begun to send an increased quantity, especially of cloth, to Canton; and in the hopes of the balance being paid in their favour in specie, they have not increased their export of tea in proportion to the importation of their manufactures. But as the Chinese do not pay the surplus of English goods in specie (probably because, since the general war against England, many ships which brought specie from Europe no longer arrive in China), and the East India company continue to send them more goods than they take in tea, the debt of the Chinese to the company is annually increasing. It is already said to amount to three million tael, or four and a half millions of Spanish dollars: a sum which the hong is the less able to pay, as the English manufactures can only be sold at a great loss for specie. So long as the Chinese purchased these goods for tea, they were sure of disposing of them to advantage, whilst nothing is more difficult than to sell any thing in China for money. It was this circumstance that rendered our business so difficult at Canton, for our super-

employ in this commerce are much smaller, it is true, than those of the other nations trading to Canton; but they generally send from forty to fifty every year. They are confined to no season, and there is scarcely any month in which their ships do not arrive at or depart from Canton. Most of these are from the north-west coast of America, and bring cargoes of furs: an article which, in fact, has fallen lately considerably in its value (though it is probable that the price of a sea-otter skin will never be less than eighteen or twenty piasters), but which finds as certain a market with the Chinese as cotton, tin, and opium. Several of these American ships come direct from America and Europe; when their cargoes consist either in specie, or European, American, and East Indian produce; brandy, rum, wine, and naval stores, such as tar, masts, iron, cordage, &c. Some run into Batavia and the Cape of Good Hope, and bring whole cargoes of wine and arrac from thence for the use of the European ships lying at Canton, in return for which they export nankeen, porcelain, silk, but particularly tea. There is never any difficulty of procuring a cargo of this latter article at Canton. The magazines of the Chinese merchants being overstocked with it, they not only sell it at a just and reasonable price, but

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cargo would not take tea, or any thing but specie for the cargo of the Neva. The English East India company will therefore be compelled, if they continue to import their manufactures in the same proportion, either to increase the export of tea, or to risk the loss of the sums due by the Chinese: for although the government is bound to pay the debts of the hong, this, in its present insecure state, probably at no great distance from its downfall, can hardly be expected from it. Besides that it is disgusted with the English, on account of their attempt to obtain possession of Macao without its consent, and of which it will not fail to make them sensible by all the means in its power.

take the goods of the purchaser at a high rate in return. Nankeen and silk are not looked upon as goods at Canton, but as real specie, and the merchant seldom purchases willingly for specie. If there is no particular cause of mistrust, the Chinese merchant readily advances a cargo of tea on credit, in order to get rid of it: and this induces the Americans to give the preference to this article, since it affords them the advantage of making a better bargain with the goods they import, and of being the sooner despatched; an object of considerable importance at Canton, the stay there being attended with much expence, while the health of the crew is a good deal at stake. The partiality for tea is as general in America as in England, the Americans having inherited the taste for it from the English: for this reason the consumption is considerable; the merchants are sure to find a market for it, and what they have no hopes of selling there they carry to France, Holland, and the northern ports of Germany.

The spirit of commerce is, perhaps, no where greater than in America. Being skilful seamen, they man their ships with a smaller crew, in which respect it appears altogether impossible to excel them. Their vessels are, besides, so admirably constructed, that they sail better than many ships of war, and I have known the captains of some of them at Canton who have made the voyage from thence to America and back again in ten months. While we were there the ship Fanny arrived towards the latter end of December, which, in the short space of twelve months, had sailed from Canton to Philadelphia, from Philadelphia to Lisbon, and from thence again to Canton; so that she must have unloaded and taken fresh cargoes on board

with an extraordinary rapidity. Besides, the return to Canton, owing to the contrary monsoon, could only be effected by the eastern passage, that is to say, by the northern parts of the great ocean round the Pelew islands. When we left Canton she was again perfectly ready for sea, on her intended return to Philadelphia, the whole term of her stay there not having exceeded five weeks. The Americans avail themselves quickly of every advantage that is offered to them in trade; and we witnessed the arrival of one of their ships at Canton with a valuable cargo of sandal-wood, which the captain had brought from the Fidgees, a group of islands, known as well for their dangerous situation as the cruelty of their inhabitants. Not one among them affords a safe anchorage; and in the month of December, 1804, an English ship was stranded on one of them, and the whole crew perished. The American, of which we are speaking, had run considerable risk of falling a prey to the cruelty of the inhabitants. Some persons accompanied them from Tongataboo to the Fidgee islands, who were all murdered the moment they landed, with the exception of one man and woman, whom the Americans brought to China. Sandal-wood is so much and so highly esteemed in China, that the captain, whose cargo cost him nothing but the trouble of felling it, disposed of it to very great advantage.

Of all the different species of teas, the Americans, as well as the English, take only a very small quantity of the best. Of the green teas the Americans take a particular kind of hyson, called by the merchants of Canton young hyson, and which costs there from thirty-six to forty taels the picul; but the greater part of the tea which the English and Americans carry

from Canton is congo and bohea. The last is, indeed, the very worst that grows, but is drunk very plentifully by the poor people in England, to whom tea is now become a necessary article of consumption; and the tea inspector at Canton assured me that in England the congo and bohea are mixed and sold in great quantities. The price of bohea at Canton is very low; only eleven or twelve taels the picul. If the trade from Russia to Canton were pursued, which I believe to be a desirable object, the importation of this common sort of tea into Russia might prove a real benefit to the poorer class of inhabitants, who, when they had once accustomed themselves to this wholesome beverage, would, in all probability, give up, in a great degree, the use of distilled liquors; a circumstance well deserving the attention of the government, as it would obviate the very injurious consequences attending the inordinate use of spirits. In almost every province of Russia there is a superfluity of honey, which would very well supply the place of sugar. Of the facility with which they would take to this beverage, and the fondness they would acquire for it, I had experience on board my ships: for, with very few exceptions, all my people would willingly have given up their portion of spirits, which they received either in brandy or arrac, in order not to lose their tea, which, if there was no particular reason for sparing the water, I gave them twice a day. At those times when it was only delivered out once a day, I have frequently seen them pouring rain-water on it, notwithstanding the rain collected on board ship generally tastes very strong of tar. It is therefore not at all improbable that the use of tea might gain ground in Russia, and supersede that of spirits. Vanity too would contribute, in some measure, to make it general; for I really be-

lieve that the labourer, if not completely depraved, would rather drink a cup of tea at home, especially when he could treat a friend, than go to a gin-shop for liquor. In the navy, and in hospitals, this beverage should be particularly recommended, being one of the best antiscorbutics, and extremely wholesome. To an invalid it is so great a comfort, that nothing more grateful can be given to him; and the cheapest kinds of tea, such as bohea and congo, would suffice for this purpose. The importation of bohea, in the event of a direct communication between Russia and Canton, would become necessary and important on another account. Tea, it is well known, is a perishable commodity, requiring great attention in lading: and if only the best species were taken, great quantities must be spoiled when stowed immediately upon the ballast, as it necessarily must be. For this reason the English always lay their ground tier of bohea the whole length of the ship: and if a few chests are damaged, as is invariably the case, the loss is no great matter, the better kinds by this means being secured from injury.

There are many qualities of tea between the finest and the coarsest, which, probably, would meet with a very ready market in Russia; and although those merchants who are the most interested in the importation of this article, and who may have well weighed this circumstance, assert that none but the finest kinds will sell in that country, the peasant and the tradesman scarcely drinking any, while the merchant and the nobleman only use the best sort; yet I think that souchong and congo, which at Canton may be purchased at a very moderate price, would be sure of finding a market in the provinces lying on the east

sea. In these luxury has not arrived at that pitch that they will drink nothing but pakoo and gunpowder tea; and it strikes me that the consumption of tea there is, comparatively speaking, greater than in the interior of the empire, which, since the acquisition of the whole of Finland, must be still more the case. But should even the use of the more common species of tea not become sufficient to ensure the sale of the quantity imported from China into Russia, these goods would, at all times, obtain a ready market in the ports of the north of Germany, and even in Sweden, whose commerce with China is not likely to be soon restored. The only rivals we should meet in this trade would be the Danes and Americans; but there is no doubt that we can carry on a commerce with China with a greater certainty of advantage than the Danes, even if we proceeded upon the same methodical plan, and established ourselves on the same footing as that nation. To the Danish East India company the merit is at least due of being an effective institution, and its flourishing state is a proof that it deserves the praise here bestowed upon it. Until 1807, the dividends on the bonds of this company rose for several years to thirty and forty per cent.

Besides tea, nankeen and silk goods are certain of finding a ready and profitable market in Russia; this is not the case with porcelain, the coarse kinds of which are too bad, and the fine too expensive*. The English earthenware has, besides, a de-

* The Americans are the only people who take any quantity of the coarse kinds of porcelain; as there is very little difference in the expence of carrying

cided advantage over the coarser kind of Chinese porcelain, not only in point of real goodness, but in neatness of workmanship. Apothecaries drugs, lackered goods, dolls, sweetmeats, and such petty commodities, are of no importance compared with the chief articles of the cargo, nor should the supercargo waste a moment's time upon them. This species of ware may succeed very well in the stall of the retail dealer, but never can answer in the warehouses of a large mercantile company. The English East India company exports nothing but tea and silk, and leaves the trade in such-like trifles to the officers and crews of their ships.

If, therefore, it were proved that the importation of several ship-loads of fine and coarse tea, of nankeen and silk, would be certain of finding a mart in the European provinces of Russia, in this respect alone the trade to Canton would become important; and it would be more so by the necessary connection with the Asiatic and American provinces, the produce of which cannot all be disposed of at Kiachta, and ought, on this account, not to be given up without sufficient reasons of state.

I will mention in a few words the manner of carrying on the European trade at Canton. It is in the hands of a company called kohong, or, more commonly, hong. The moment a ship arrives at Whampoa, it becomes the first care of the captain or supercargo to find a merchant in this company who, according to the laws of the country, will be bound to the government for

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earthenware from England, and porcelain from China to America. The porcelain likewise serves them for ballast.

the ship. As soon as any one has thus bound himself, he must answer for every thing done on board: the government only looking to this man, who is called the security-merchant. During my first residence at Canton in the year 1798, the security-merchant of an English ship lying there, and which had come from India, was obliged to pay a heavy fine, because a chest of opium was accidentally sent on shore and opened at the custom-house*; the captain of the ship escaping altogether. To this security-merchant the cargo is generally sold, although you are not bound in such a manner that no other merchant can be employed if the former offers too little for it. This, in fact, is rarely done; being almost a standing rule of the hong, and never infringed but by some Americans, who derived no advantage from it: at all events, it is attended with great loss of time for any captain to apply for the sale and purchase of a cargo to any other than to his security-merchant, and the Americans now only transact their business through him. As the hoppoo exacts a sum of money for every ship that arrives, from the security-merchant, in the supposition that he derives great advantage from the purchase and sale of the goods, no ship is allowed to proceed to Canton that has not some goods on board. Specie alone is not sufficient to obtain the permission; and if there had not been four hundred sea-otter skins on board the Nadeshda, I might have applied in vain for leave to go to

* It could only have been by accident that the smuggling of a chest of opium was discovered; for the Chinese custom-house officers never betray such a thing, their profits upon it being very great. Notwithstanding the severe penalties laid by the government on the importation of opium, this article, become one of necessity to the principal Chinese, is imported with impunity in almost every ship.

Whampoa. Every ship coming from the north-west coast of America with furs pays five thousand piasters, a loss which the seller must always experience; the Chinese merchant declaring, as he concludes the bargain, that a similar sum must be paid to the hoppoo. If this is refused, he offers less for the cargo, and you have gained nothing by your refusal. Should the merchant decline paying the sum demanded, he is obliged to submit to the hoppoo's selecting the best furs in his cargo; a selection which is made with so little delicacy, that it is better to pay the sum required than to be exposed to it. The Neva was forced to pay seven thousand piasters, the hoppoo having learnt that her sea-otter skins were better than those brought in the American ships, and that there were some black foxes on board. The cargo cannot be landed until the security-merchant has settled with the hoppoo. If you are dissatisfied with the price that is offered, and cannot find any one who will give more, you are at liberty to re-ship your goods; but the duty must be paid a second time, as was the case with some furs on board the Neva. Forster is wrong when he affirms (vol. ii. p. 190,) that goods once landed can never be re-shipped under any pretext whatever; and he is equally incorrect when, speaking of the merchants of the hong, he compares them to the other Chinese merchants; adding, that you are left entirely at their mercy, and are obliged to sell your cargo to the security-merchant.

It was the father of the present chief of the hong, Panquiqua, who gave the government the plan of this company, as injurious to the interests of the Europeans as it is advantageous to its own members, besides being the source of an income of several

millions to the hoppoo. It was he too who abolished the law so dangerous to him on account of his extensive property, by which the members were generally bound for each other, and which always secured the capital of the English merchant. Application may, however, be made to the government, if any member of the hong either cannot or will not pay; and this constitutes the only difference between the members of this company and the other merchants of Canton, as you cannot complain of the latter, however you may be cheated by them. The hong does not consist of any particular number of members: during my first stay at Canton, there were eight, and there are now eleven belonging to it. The number always depends on the hoppoo, to whom the nomination of the members is a rich source of emolument, as they pay from thirty thousand to sixty thousand taels to be admitted into the hong. Lucqua, our security-merchant, who was only lately become a member, had paid thirty thousand taels; and besides this enormous sum, they are exposed to the constant exactions of the hoppoos, who incessantly strive, as they are removed every year, and on this account are compelled to make the best of their time, not only to increase their own property, but to collect large sums of money as presents for the minister at Pekin. The merchants of the hong therefore are, in fact, not to blame for endeavouring to clear themselves by means of the European trader; and this they do in pursuance of ancient laws and maxims, by which nobody is allowed to say that they are not as honourable and as conscientious in transacting their affairs as those in Europe can possibly be. In speaking therefore of the knavery of the Chinese merchants, this does not apply to the members of the hong; nor could they possibly maintain themselves in their

situation unless by a fair and honourable conduct, as the enormous quantity of goods which are shipped for Europe in a very short space of time cannot be examined piece by piece; and those imported from Europe, such, for instance, as bales of cloth and camlet, sewed together in England, are sent unopened into the interior of the empire. In no part of the world can trade be carried on with a more reciprocal confidence than at Canton; and this contributes to the extreme celerity with which a fleet composed of twenty ships and more, each of twelve or fourteen hundred tons, is unloaded, and receives a fresh cargo on board in the space of eight weeks *.

It may appear that the first Russian ships that ever touched at Canton were not received in the most friendly manner, but this was merely the consequence of a misunderstanding, and had nothing to do with their stay at Canton. In my opinion the trade of the American company cannot exist without that of Canton; and as no official permission was ever granted for Russian ships to go there, no time should be lost in obtaining this permission as soon as possible, in order that, whenever a general peace shall take place, the company's ships may immediately run with a cargo of furs to Canton, and not be compelled to sail half the world over with a lading of stones. Nor can there be any doubt but that the Russians would obtain the permission to trade with Canton as easily as any other nation. The political importance and vicinity of Russia are arguments too

* They were very much surprised, and not a little angry, that our supercargo examined every chest of tea and bale of nankeen. This may be very necessary at Kiachta, but is not at all so at Canton.

powerful in the eyes of the cowardly Chinese for them to persist, with any obstinacy, in the selfish determination to throw difficulties in the way of a naval commerce with her. Their character, as is very correctly observed by Lord Macartney and Barrow, who had both an opportunity of examining them closely, and who judged of them with impartiality, is a strange mixture of pride and meanness, of affected seriousness and childish frivolity, of refined politeness and striking indecency. These traits, which are characteristic of the whole nation, are all to be found in the members of the two councils, and of the six departments entrusted with the conduct of the government; and it is from them that the permission to trade with China by another course than through Kiachta is to be obtained. As soon as they are once convinced that force will be met with force, they will not hesitate to act with more justice. What is to be expected from the Chinese by treating them with respect and submission, the Dutch embassy of 1798 has more than sufficiently shewn.

I shall conclude these remarks upon the Chinese trade with an account of the price of the different kinds of tea, and of some other goods which would find a ready market in Russia, such as they were in 1806 and 1809. For the account of the prices of 1809 I am indebted to Mr. Dobbel, an American merchant, established at Canton. A tael contains ten mace, a mace ten candarines. The course of a Spanish dollar, the only specie passable at Canton, is generally seven mace, two candarines. A picul contains one hundred catty, one hundred and forty-seven and a half Russian, or one hundred and thirty-three one-third English pounds weight.

BLACK TEA.

1. Pakoo or pecko, likewise called bloom tea, costs from 60 to 80 tael the picul. The finer kinds of souchong are still dearer, and cost 1 or 1½ piasters the catty.
2. Padre souchong, common sort, 60 tael the picul.
3. Bohea souchong, first class, from 38 to 48 tael the picul.
4. Bohea souchong, second class, from 28 to 34 tael.
5. Company souchong, a species of tea the English chiefly export, costs 24 tael the picul.
6. Bohea campoi, from 27 to 30 tael.
7. Bohea congo, from 26 to 29 tael.

There is another kind of black tea called ankoy: the finer kinds cost from 35 to 40 tael the picul, but this is not considered an article of trade.

8. Common ankoy costs from 20 to 21 tael the picul.
9. Ankoy souchong, from 15 to 24 tael.
10. Ankoy pecko, 19 tael.
11. Ankoy congo, from 10 to 18 tael.
12. Ankoy campoy, from 18 to 19 tael.

GREEN TEA.

1. Imperial tea, by the English called gunpowder, and by the Russians pearl tea, costs from 60 to 80 tael the picul.
2. Hyson, first class, from 48 to 60 tael.
3. Ditto, second class, from 48 to 56 tael.

4. Hyson, third class, from 42 to 44 tael.
5. Young hyson, from 36 to 48 tael.
6. Hyson skin, from 28 to 29 tael.
7. Singlo hyson, from 27 to 28 tael.
8. Singlo skin, from 24 to 26 tael.

The hyson cheelan is the finest green tea, but this is only sold in small lackered boxes containing from nine to fifteen pounds, at the price, generally, of a Spanish dollar the pound.

In 1806 and 1809 a bale of one hundred pieces of wide, or, as it is called, company's yellow nankeen, cost one hundred piasters for one hundred pieces; the white from eighty-eight to ninety-two piasters. Of the second class, the yellow cost from fifty-six to sixty piasters; the white from forty-eight to fifty-two piasters the bale.

Nankeen raw silk costs from three hundred and eighty to four hundred piasters the picul. Of the raw silk of Canton, the first class cost two hundred and ten piasters, the second two hundred, the third one hundred and seventy, and the inferior kind one hundred and fifty piasters the picul. Flock silk, and the finest sewing silk, cost five piasters the catty; the coarse four. Silk stuffs are sold in pieces of fifty cubits, or twenty-eight three quarters arschins. A piece of nankeen satin, above one and one quarter arschin wide, cost twenty-eight piasters. The Canton satin is half an arschin narrow, and costs eighteen piasters.

The price of camphor is fifty piasters the picul, vermilion sixty, and white-lead fourteen piasters the picul. Moschus costs

fifty-six piasters the catty: the best sugarcandy (at Canton, called chinchoo) seventeen piasters, and the best powder sugar eight piasters the picul.

The following is the price of some of the provisions paid to the comprador, who, perhaps, does not gain less than one hundred and fifty or two hundred per cent. on the purchase money.

The Pound.	Mace.	Cand.
Pork	1	0
Beef	0	6
Capons	1	5
Fowls, ducks, geese	1	2
Smoked ham	2	4
Butter	2	3
Mutton	2	4
Wheat bread	0	7
Rice	0	3
Fruit and vegetables	0	4
Coffee	1	9
Fish	0	6
Green peas	0	8
Lamp oil	0	6
Wood, ten pounds	0	3
Ten eggs	0	8

A short time previous to my departure from Kamtschatka for China I received from Counsellor Würst some questions on the political state and commerce of the southern provinces of China, accompanied by a wish on his part that, during my stay at

Canton, I would endeavour to obtain information upon them, and send him the answers. Notwithstanding I took every possible pains, there were some of the questions upon which I could not acquire any satisfactory intelligence: if I applied to a native Chinese, I found his knowledge of the English language so trifling, that I had the greatest difficulty both in understanding him, and in being understood; and it was seldom he possessed the information necessary to enable him to give a satisfactory answer to my enquiries. I am therefore indebted to the communications of the Europeans resident at Canton for the reply to some of these questions. As M. Würst's intention in putting them to me was to confirm, or, at least, to obtain such remarks as might enable him to amend or reject the information concerning the Chinese government, contained in various books already published, his object will be attained by my introducing in this place the questions to which I have been able to obtain any kind of answer, although the subject of some of them is already known from earlier works upon China.

1. What is the usual rate of interest on money in China, and the difference of credit on mortgage and personal security?

At Canton they pay at the rate of twelve or eighteen per cent. according to the degree of credit and of connection between the borrower and lender; but I am assured that thirty-six per cent. is the lawful interest in China, and that this is paid in the northern provinces.

2. Is there any slavery, or are any services due from the tenant to his landlord?

There is no personal slavery in China: the Chinese are born free; and the rich and people of quality are obliged to pay for the services of those they stand in need of. It is, however, not unusual for parents to sell their children, although not so frequently the males as the females. Even in this case they are only bound until they become of age, when they return into the class of their fellow citizens; thus they cannot be exchanged, given away, or resold by their masters. With regard to the female sex, which in China, as in all other eastern nations, does not enjoy the consideration that is paid to it among the polished people of Europe, the police is not so strict; and the females sold into bondage generally continue slaves all their lives.

3. What does the property of the richest individuals amount to? are these generally the possessors of landed estates, or merchants whose wealth consists in their goods?

The wealthy inhabitants of China are chiefly merchants, and are of that class particularly who farm the monopoly of salt. The duties on this article form a principal part of the revenues of the Chinese government; and in every province there is a company of merchants who have purchased the monopoly of it. These, together with the mandarins, are the most important members of the state, they alone having the privilege of going armed, and their messengers always travel so. They have a right to make a forcible entry into any house, and institute an enquiry, if they suspect the proprietor of having salt not purchased of the company. Next to these monopolizers the members of the kohong are probably the richest. The property of Panquiqua (the chief merchant of the kohong) was esti-

mated at four million tael, or six million piasters. Generally speaking, there are no possessors of large landed estates in China.

4. Are bills of exchange or assignations common in the Chinese commercial world? What are the laws relative to bills of exchange?

They have no bills of exchange as in Europe, consequently, no laws relative to their payment. Indeed, it very seldom happens that any Chinese lends another money. In a country where the possession of wealth may easily be the means of rendering a man suspected, no one is disposed to publish the state of his income: even Panquiqua, in spite of his vanity, does not speak very willingly of his great property. However, as money transactions are unavoidable among the mercantile classes in China, there are necessarily written agreements; but these consist, in reality, of nothing more than an acknowledgment of the receipt of the money, with the promise to repay the debt in a given time. Should the debt happen not to be paid, and the debtor be brought, in consequence, before the mandarin, this magistrate compels him to refund, after being convinced of the justice of the demand, either by the bamboo, or by seizing his property, out of which he satisfies the creditor. But it is very seldom that a Chinese will bring his complaint before a magistrate, gladly waiting a long time in the hopes of being satisfied in some way or other. The reason of this is, that the mandarin, when he is made acquainted with the true circumstances of the complainant, generally demands half the sum in litigation for his trouble; and in case of a refusal, declines having any thing to do with the matter.

5. Are companies and corporations usual? Upon what footing are they established?

All trades are united in companies, and have their presidents. At Canton the different bodies reside in distinct streets, some, for instance, being inhabited merely by tailors, others by glaziers, shoemakers, apothecaries, &c. They have their proper feasts, at which players are usually hired; and it is made known that on such a day a particular association will give a play, to which every one has free admission.

6. What are the great commercial towns, annual fairs, and settled marts for goods? From what ports is the trade with Japan, the Philippines, the Sunda islands, and the coast of India, carried on?

The most important ports in China for foreign commerce are, Canton on the south coast; Emouy in the province of Foki, on the south-east coast; and on the east coast, the port of Ningpo in the province of Chekiang, not far from the Chusan islands *. The Chinese ships or junks sail from Canton for Malacca, Batavia, Siam, and the other countries bordering on the Chinese sea; from Emouy, for the Philippines, and the Likeo islands; and from Ningpo, only for Japan and Corea. The coasting trade is carried on from almost all the ports in the empire; and

* At the commencement of the last century the English had agents both at Ningpo and Chusan.

every large town is a staple mart for the inland trade of the various produce and manufacture of the province; this is particularly the case with those which lie on the great rivers and canals.

7. What are their post regulations? Are there regular posts throughout China, and can every one avail himself of them?

There is only one regular post between Pekin and Canton, of which every one may avail himself, but the letters are broken open and read. With the exception of this, there are no posts in all China, nor any means of sending any thing except by an express, or by availing yourself of the opportunity of some traveller.

8. Is there any hereditary nobility, or is the rank they hold only for life?

There is no hereditary nobility in China. The rank of mandarin, as well as all the public offices, is distributed according to the emperor's or the minister's pleasure. The descendants of Confucius, however, possess a certain rank; and the emperor, as unlimited monarch, may confer hereditary rank.

9. Are there any large public manufactures, or are these in the hands of companies consisting of private individuals? What is the relation between masters, workmen, and apprentices?

There are considerable manufactures in China, such, for instance, as the large porcelain manufactory in the neighbourhood of Canton; but I believe that almost all the silk, cotton, and other goods exported from China are made by individuals. I doubt whether the government supports any manufactories, as is the case in several European countries.

10. Are the weights and measures the same in all parts of China, or, if any difference, in what does it consist?

The weights, according to the information of the merchants whom I have consulted, are the same in all China, with the exception of Pekin. A picul contains one hundred catty, and a catty is equal to 1,47½ pound Russian. At Pekin the picul contains only ninety-seven catty. The measure too is shorter at Pekin: a cubit, for instance, (the common measure in all China) is, at Pekin, only eight and a half puntos, but, in the southern parts, it is ten.

11. Are there any commercial companies? where do they reside? what laws and regulations exist respecting them?

I have only heard two such companies mentioned, namely, the kohong at Canton, and that of the salt-dealers, of which latter there are many in China, as those interested in this trade derive the greatest advantages from it. The chief regulation of these companies is, that their members shall be mutually and separately bound to the government: and this is of the greatest importance, as it secures the latter against any loss by them.

It is only the head merchant of the kohong who is answerable to the government.

12. What steps are taken with bankrupts? what laws are there against debtors?

The manner of proceeding, in cases of non-payment of debts, has been mentioned in a preceding answer to a similar question. There is, however, a custom very general in China, but, perhaps, only in collecting smaller debts, although I have been assured that even the merchants of the kohong are liable to it. The new year's-eve is appointed for the payment of all debts. He who does not pay before this time may be ill-treated by his creditor, without the power of preventing it, or of defending himself; and the latter has even a right to destroy the household utensils of his debtor, and to commit other mischief. At midnight all this ceases: they then instantly renew their relations of friendship, and drink together to the new year. The following is the mode of proceeding in trials at law: the plaintiff as well as the defendant both choose a person as security, who is answerable for the merits of his client's case. He who has a doubtful or an unjust case to defend must pay his security a larger sum of money; for as soon as this is decided by the mandarin the latter is punished with the bamboo, for having made himself responsible for a bad cause. Now, as the callao, or prime minister of the emperor, is not secure against this castigation, corporal punishment has nothing disgraceful in the eyes of the Chinese; but the profit in money is certain, and all corporal punishments may be bought off. Besides their security, the clients have likewise their advocates, whose fate depends entirely

on the fouyon or civil governor, who in the trial of any cause looks only to the pleaders, and punishes them severely if they have defended one that is unjust.

13. Is the trade more a barter of goods for goods, or is there a settled value in money for every article as with us?

As there is very little specie in circulation, and no coin with the exception of the small copper one called zee, the taxes being paid to the government in kind, although trade is very much extended, it seems most probable that the barter of goods for goods exists throughout the empire. Canton is probably the only exception.

14. Is there any book-keeping in their wholesale dealings? Are there are any assistants in commercial affairs: such as stock-jobbers, brokers, weighers, meters, &c.?

The Chinese merchants of Canton appear very skilful in book-keeping, their extensive concerns requiring the greatest punctuality. There are no brokers and jobbers appointed by the government. Every merchant of the kohong has his own assistants, who examine the goods to be taken or rejected, weigh, count, and measure them.

15. Are many goods transported by carriers over land? Are there regular carriers or ships?

All goods are conveyed by the canals and rivers: I be-

lieve there is no conveyance by land. I doubt very much too whether any vessels sail at appointed times.

16. Is the condition of the husbandman as much superior to that of the handicraftsman in China, as the reverse is the case with us? Does every Chinese exert himself to obtain the immediate property of a piece of land, or does he hire it? And are estates let on reasonable terms, with sufficient security to the proprietor?

The answer to this question I must borrow from Barrow's Travels in China, pages 397, 398, of the original edition in 4to. The farmer is the next in rank to the men of learning and officers of the crown. The merchant, the artist, and the handicraftsman are far beneath him. The soldiers cultivate the land in China, and so do the priests when there is any attached to their convents. The emperor is looked upon as the only proprietor of land. The lessee is, however, never ejected from that which he hires, while he regularly pays the rent. If there be more than he and his family are able to till, he makes over the remainder to another person, upon condition of receiving half the produce, although he refuses paying the duty on it to the government. Many of the poor countrymen in China work upon these terms. Estates are seldom so large as to occupy any considerable district; there are therefore no monopolists or corn-factors among the holders of them. Every one may dispose of his produce freely, and where he likes. Fisheries are never hired. Every subject has a right to fish undisturbed in the open sea, on the coasts, lakes, and rivers. There are no proprietors of estates with particular privileges.

17. Do the chief revenues of the ruler of China arise from a duty on landed property? What is the amount of this duty? How is it collected, in money or in kind?

The chief revenue of the emperor of China arises from the tax on landed property, which amounts to a tenth of all the produce, and is paid in kind. According to a sketch that Lord Macartney obtained from the mandarin Chon-ta-gin, sixty millions sterling is the amount of the taxes and duties collected throughout all the provinces of the empire.

18. To whom is the repair and maintenance of the public roads and canals intrusted, and at whose expence is this effected?

All boats with merchandize pay a regular toll in the rivers and canals, which is destined solely to the repair of the bridges and locks. I believe there are no public roads in China.

19. Do the Chinese imitate European works of art? Do they understand making watches?

The Chinese imitate most European works, not, indeed, to any perfection; they make beautiful things themselves in ivory, tortoise-shell, and mother-of-pearl; and their filagree work in gold and silver is very neat. They make clocks, but not watches, nor have they been ever able to manufacture cloth.

20. A common workman is said to have great difficulty in supporting his family; a handicraftsman still more so. They are reported to run about the streets with their instruments and

tools to obtain work. The refining of sugar, it is said, is done by workmen who wander about in this manner, and that many people live constantly in boats on the rivers, whilst others devour dead dogs and cats?

Owing to the immense population, the common people may certainly suffer from want, and a general famine throughout the empire is therefore no unusual thing. At Canton, however, the labourer and handicraftsman did not appear in any want of employment, although even here there was no scarcity of beggars, whose disgusting appearance renders it very unpleasant to walk the streets. Of their eating dead dogs, cats, and even rats, I had frequent opportunities of assuring myself: and some casks of putrid salt meat that I threw overboard, and the smell of which was so strong as to be perceived for several hours at Whampoa, they fished up with the greatest eagerness, and carried off in triumph. On the Tigris, near Canton, several people have taken up their residence in boats, and this is the case on all the other rivers, canals, and lakes in the empire, and in many places the number of such inhabitants equals that of those on land. It is, however, very probable that in the interior of China, where there are not the same advantages for trade which these rivers and canals afford, the country is not so populous, or so carefully cultivated.

21. Marriages are said to be promoted by the permission to kill their children. It is reported that there are people who make a trade of murdering children?

That the murder of children is universally permitted in China

is a fact that, unfortunately, can no longer be doubted. The Chinese, whose moral character is so much commended, sees as little crime in the murder of his children, as the child of nature of the islands of the Great Ocean, who is so highly esteemed by many, conceives to be in cannibalism. At Whampoa many dead children were seen floating down the river.

22. Notwithstanding this, the population of China does not decrease. The towns are spoken of as full of inhabitants, and lands that have once been cultivated are never forsaken?

There are various accounts relative to the population of China. The extremes run from seventy to three hundred and thirty-three millions. The first number is given by Sonnerat, the second by Sir George Staunton, after a table which Lord Macartney obtained at Pekin of the population in the year previous to his arrival. The Jesuit Amiot takes about the mean between these two; calculating one hundred and ninety-eight millions. It probably will never be correctly ascertained whether the population of the Chinese empire is as numerous as the mandarin Chou-ta-gin represented it to the English ambassador. Barrow has no doubt of the correctness of these tables. He proves, that in proportion to the whole surface of the country, the population of China is as two to one compared with that of England; and that this is more especially the case between the number of inhabitants of the large towns, such as Canton, Nankin, Pekin, which can be more correctly ascertained, and that of the large towns in England. Whoever has seen Canton, and judges of the population of China by that of this city and its suburbs, will not consider the tables of the mandarin

as imaginary. What struck me very much, however, was, that, according to these tables, there are six hundred and forty-four souls to a square mile in the province of Petscheli; while in that of Kiang-nan on the contrary, which, on account of its fruitful soil and situation as the centre of all the inland trade, must naturally be very populous, there should be three hundred and forty-four souls less to the square mile; when, by the statement of those who have travelled across the province of Petscheli (Barrow himself expressly states this), the land is unproductive and ill cultivated, the appearance of the peasantry poor and sickly, their houses wretched, and the population very thin. Besides, they have no fisheries, which add considerably to the population of a country, many thousands on that account living on the water; and the climate of this unfruitful province, owing to the burning heat in the summer, and the severe cold of the winter, carrying off thousands annually *. Even the province of Chekiang, every part of which, Barrow says, is cultivated in the most luxuriant manner, with an immense population, contains one hundred and eight souls less on the square mile than Petscheli; nor does the population of the province of Quantung, so striking to every new comer, bear any proportion to it, containing only one hundred and sixty-four to the square mile, consequently, not half of the population of Petscheli. These comparisons induce me to doubt the accuracy of the tables, and to suppose some mistake in the statement of the population of that province. Even in the most cultivated districts, six hundred and forty-four souls to an English square

* Allerstein makes the population of Petscheli amount to fifteen millions, that of Kiang-nan to nearly forty-six millions. A. Geog. Eph. 1809. February.

mile appears an almost impossible population; for in England they only calculate in the proportion of one hundred and twenty, and in Holland of one hundred and ninety-eight souls.

23. In what parts do they live upon other food than rice, and where do they eat meat? What is the proportion between a pound of beef and a pound of rice?

Rice and fish are the chief articles of consumption throughout all China; but wheat is cultivated in the northern provinces. Of beef and mutton they eat very little, but considerable quantities of pork are consumed, particularly in the southern provinces.

CHAPTER XII.

PASSAGE ACROSS THE CHINESE SEA.

The Nadeshda and Neva quit the Coast of China—Longitude of Poolo Wawoor, of Macao, of the great Ladrone Islands, and the Island of Potoe—Endeavours of several English Navigators to improve the Hydrography of the Chinese Sea.—We pass Poolo Sapato in the Night—The Andrada Rock, and the Middleburgh Shoal—We see Poolo Wawoor—Regulate our Time-pieces by its ascertained Longitude—Pass the Straits of Gaspar—Chronometrical Determination of the Longitude of North Island—The Nadeshda enters the Straits of Sunda by the Passage of Zutphen—Advantages of this Passage over that of Bantam—Anchor between the Island of Crocatoa and Tamarin—Longitude of Crocatoa and Prince-Island—Perilous Situation of the Ship during a Calm—Incorrectness of the Charts of the Straits of Sunda.

ON the ninth of February, 1806, at ten o'clock in the morning, the Nadeshda and Neva sailed from Whampoa. In case of our separation from the Neva, I appointed St. Helena as the place of rendezvous; telling Captain Lisiankoy, that the political changes in Europe which we should certainly hear of there, or probably sooner, by some ship from Europe, might render it necessary for our mutual safety that the two ships should remain together; and that, on this account, we ought to endeavour not to outstrip each other*.

* The reader will find that the Neva, notwithstanding this admonition, did not put into St. Helena, but made direct for England.

On the 10th of February we passed the Bocca Tigris, and anchored in what is called Anson's Bay. We found here the English men of war, the Blenheim of seventy-four guns, and a forty gun frigate, which were appointed to convoy the English China fleet, consisting of seventeen ships, of from twelve to fourteen hundred tons, at this time at Whampoa, across the Chinese sea, as far as Poolo Pinang. We sailed on the morning of the 11th from Anson's Bay, with a light breeze at N. N. W. and anchored in the evening not far from the island of Zinting. The next morning early we set sail with a fresh east wind: about nine o'clock we passed Macao, and at ten the small island of Potoe bore due south of us. This island, which lies, according to my calculation, in latitude 22° 02′ 36″ north, and longitude 246° 15′*, I made my point of departure.

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* To prove this calculation I must refer to the longitude of Macao, of the great Ladrone islands, and of Poolo Wawoor. These are, according to various data, as follows:

Macao, according to the observations of the astronomer Bayley, lies in	113°	38′	15″	east L.
Dagelet, in	113	39	30	
Of Captain Huddart, in	113	36	45	
Lestock Wilson, in	113	34	45	
According to our observation by a mean of 115 lunar observations at Macao and Canton, allowing a meridian distance of 17′ 15″	113	37	16	
The mean of all these results gives for the longitude of Macao	113	37	19	east,
Or 246° 22′ 41″ west of Greenwich.				
Poolo Wawoor, according to the observations of Captain King, lies in	104°	37′	00″	east

At ten o'clock, the island of Potoe then bearing due east, I shaped my course south and south-east half east. This

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Of Captain Lestock Wilson, in	104°	36′	00″
Dunlop, in	104	33	00
The mean of Captain Mac Intosh's many observations	104	36	40
According to the chronometrical calculations of six different persons between Malacca and Poolo Wawoor (the longitude of Malacca taken after Horsburgh at 102° 15′) ; . . . ; . . .	104	37	30

The mean of these observations would give for the true longitude of Poolo Wawoor 104^h 35′ 22″ east, or 255° 24′ 38″ west of Greenwich: a longitude which must be correct within a minute or two, and which may safely be assumed as the true one, until it is ascertained within half a minute by observations of the heavens made on shore there. A correct knowledge of the longitude of Poolo Wawoor is particularly important, this island being looked forward to as a first meridian in the Chinese sea: all ships, whether from the straits of Malacca, Banka Gaspar, or Billiton, being obliged to make it.

The great Ladrone island, by the mean of several chronometrical observations of Captains Mac Intosh, Horsburgh and Shepherd, lies 9° 10′ 53″ east of Poolo Wawoor, consequently the longitude of the great Ladrone island is = 104° 35′ 22″ + 9° 10′ 53″ = 113° 46′ 15″ east, or 246° 13′ 45″ west of Greenwich.

From all these observations, the longitude of the small island of Potoe, called also Passage Island, results as follows:

1. This island lies seven miles east of Macao; and as the longitude of Macao is 246° 22′ 41″, that of Potoe must be	246°	15′	40″	west.
2. According to Captain Mac Intosh's observations, Potoe lies 11° 32′ 00″ east of Malacca, and Malacca lying in longitude 120° 15′, that of Potoe should be	246	14	00	
3. According to a chronometrical observation, Potoe				

would bring us on the Macklesfield bank, where I wished to sound. At noon we observed in 21° 53′. The wind blew fresh at E. by N. and the next day at E. S. E.

On the 15th of February, at nine o'clock in the evening, being in latitude 16° 02′, and longitude 245° 26′, we had soundings in fifty-five fathoms, over a bottom of fine sand; and at four o'clock in the morning in 15° 40′, and 245° 55′ in sixty-five fathoms, a bottom of sand and muscles: this I thought the western extremity of the Macklesfield bank, as I conceive 245° 20′ to be its eastern extreme *. But the true form and extent

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lies 9° 9′ 30″ east of Poolo Wawoor. And this latter place being in longitude 254° 24′ 38″, that makes the longitude of Potoe	246°	15′	08″
The mean of these three observations makes the longitude of Potoe 246° 14′ 56″, or in round numbers .	246	15	00
consequently, only one minute to the westward of the great Ladrone island.			

Observation.—I had already compared the longitude of these points with the data imparted to me by Captain Mac Intosh at Canton before I saw Captain Horsburgh's new chart of the Chinese sea. The difference of the longitudes is, however, extremely trifling: for instance, the great Ladrone island lies in his chart two minutes, and Poolo Wawoor not quite two west of what the above observations make them. In the longitude of Macao there is, however, a difference of 7′, which must occasion a similar difference in that of Canton. The meridian difference of Macao and Canton is by a mean of the chronometrical observations of Captains Mac Intosh and Wilson, and Mr. Brown, 17′ 15″. This makes the longitude of Canton 246° 22′ 41″ + 17′ 15″ = 246° 39′ 55″, or in round numbers 246° 40′. In Horsburgh's chart Canton lies 30′ west of the meridian of this chart 113° 44′, consequently 246° 46′ west of Greenwich.

* According to Captain Horsburgh's new chart of the Chinese sea, the extre-

of this bank has never been accurately ascertained, and it is very much to be wished that some European naval power would cause a correct survey of the Chinese sea; for although several skilful English captains, who navigate it at all seasons of the year, are constantly adding to the knowledge already obtained of this dangerous ocean, there are still many points very imperfectly laid down, and many islands and rocks undiscovered, particularly in the vicinity of the Paracel. The boundary of this dangerous rock is, indeed, very much reduced, and the passage between it and Cochin-China not unusual*, but there is no part of the ocean, the accurate examination of which would be attended with more difficulty, as, except in the months of February, March and April, the most violent storms prevail, the danger of which is greatly increased by the rapid currents and the number of rocks and islands. From May until November dreadful typhons constantly prevail, and few vessels are able to stand against these tremendous hurricanes. About two years ago the governor of Bombay sent two ships to explore the Chinese sea; but nothing farther has been heard of them, neither is it known in what manner they have been lost.

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mities of the Macklesfield bank are 16° 18′ and 15° 18′ N. and 245° 08′ and 246° 15′ W.'

* In 1799, as I was returning home from China to Europe in an English fleet of upwards of twenty ships, and it was deemed too daring to steer the regular course for the straits of Malacca, a Spanish and French squadron under Admiral Sercey being on the look-out after it, it was determined to run between the Paracels and the coast of Cochin-China: a passage that had hitherto only been attempted by single ships. The commodore of the English squadron, under whose convoy they sailed, appointed the most skilful and experienced captain to lead the fleet, who was the above-mentioned Captain Mac Intosh, commander of the ship Sarah.

Great pains have been lately taken by Captains, Lestock Wilson, Mac Intosh, and Horsburgh, to improve the charts of the Chinese and East Indian seas; an undertaking for which their zeal, their accuracy, and astronomical knowledge, rendered them particularly proper. The chart published by Captain Horsburgh in 1806 of the Chinese sea and the straits of Malacca, and which may be considered as the result of his long experience and observation, is undoubtedly the most correct one of these parts. Great improvements may likewise be expected from Captain Mac Intosh of the charts of these seas; but as his duty still detains him in India, he very willingly communicates his observations to those whom he imagines will derive any advantage from them. I have myself received a very important collection of astronomical points in the Indian and Chinese seas from him, principally resting on his own observations, although several of them were made by other English navigators, who are distinguished for their accuracy. In the note from page 361 to page 363, I have availed myself of these points in determining the longitude of Potoe. Nor did the captain hesitate to communicate to me all his improvements of the charts of the Chinese sea, of the coast of Cochin-China and Cambodia, as well as a copy of his Journal of a Voyage to China in the year 1805, by an unusual route, and various other interesting information relative to the navigation of these seas, of which I have availed myself in my chart of the Chinese seas, and for which he will allow me in this place to express my grateful acknowledgment. Too much praise cannot be bestowed on the liberality of English navigators; and which I have frequently experienced during my long intercourse with the naval officers of this nation. The conduct of Captain Mac Intosh, who with the

greatest frankness imparted his observations, and really valuable remarks, to an officer of a foreign power, forms a striking contrast with that of a Dutch captain at Nangasaky, who answered me, upon my expressing a wish to see the chart by which the Dutch navigate between Batavia and Japan, "We certainly have very good charts, but are very loath to shew them;" and who upon my asking him the longitude of Nangasaky, gave it me with an error of six degrees, although at first sight of the port we knew its true longitude within a quarter of a degree.

On the 16th February our observations at noon, in 15° 23′ N. and 246° 24′ 50″, shewed a current of fourteen miles due north, although this was directly contrary to the rule of the north-east monsoon. Possibly the currents on the Macklesfield bank always take an opposite direction; though the next day, with a fresh breeze at N. E., we met with a current of three miles to the northward, and of twelve to the westward.

On the 18th February, at six o'clock in the evening, I altered my course from S. S. W. to S. by W. ½ W., in order to pass between Poolo Sapata and the Andrada rock, which latter, in Dalrymple's chart of the Chinese sea, lies sixty miles to the eastward of Poolo Sapata*. The wind blew very fresh, and as

* In Captain Mac Intosh's above-mentioned remarks on the latitudes and longitudes of the Chinese sea, I find this rock laid down in latitude 10° 07′ N., and longitude 110° 14′ east. The authority for this is not mentioned, but is merely to be considered as calculated from Poolo Sapata, so that it still remains uncertain whether the rock was really seen and laid down. Captain Horsburgh has great doubts of the existence of this rock; and his new chart contains the following remark upon it: "In the year 1801, the American ship the Lovely Lass saw this

the situation of the Andrada has not been determined by any late observations, I took in all sail at night: a precaution which I conceived the more necessary, because in case of so strong a southerly and westerly current from S. S. W. forty-two miles, as Captain King found in these parts, we might before daybreak have got on the Middleburg bank, which, in Dalrymple's chart, lies sixty miles southward of Poolo Sapata; a situation that accords with Captain Baldwin's observations in 1786, namely, 9° 04′ N., and 109° 05′ east*. At five in the morning I steered S. W. by W. At noon we found the current S. W. eighteen miles. Although we had not seen Poolo Sapata, in which case

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rock; and ascertained by observations at noon for the latitude, and lunar observations for the longitude, that it lies in 9° 47′ N. and 110° 18′ east." Captain Horsburgh, however, believes that it was not a rock, but only a wreck that the American saw. In 1771 Captain Skottowe, of the English ship Bridgewater, had soundings in these parts, in 10° 26′ N., and 110° 26′ east, in sixty-five, fifty-five, and ninety fathoms, but without perceiving the rock. The Portuguese adopt 10° 13′ as the latitude of the Andrada. By its name this rock was probably discovered as early as the sixteenth century, Fernand Perez de Andrada being that of the Portuguese commander who first touched at Canton in the year 1517.

* Dalrymple calls the Middleburg bank Lapaix, after the name of the French ship commanded by M. de la Placeliere, who first discovered it in the year 1753. He passed this reef at about a cable's length, and calculated its extent to be about one and a half cable's length. See Dalrymple's "Memoirs of a Chart of the China Sea," in the sixth vol. of his Collection, page 11. In Captain Horsburgh's chart this bank lies in 8° 56′ N., and 111° 06′ east. The difference of two degrees in the longitude of the authorites just adduced must arise from Horsburgh's having mistaken the Middleburg bank for that which is laid down in the charts as Gossard's reef. According to Dalrymple, the reef discovered by Gossard in the year 1741 lies in 8° 58′ N., and 9° 32′ west of Luban, or 110° 42′ east of Greenwich, very distinct, therefore, from the bank La Paix, or what is the same thing, the Middleburg bank.

it is held adviseable to see Poolo Condore, I did not conceive this necessary, and steered direct for Poolo Timoan. At six in the evening we sounded in thirty-five fathoms, the bottom of fine grey sand. At this time our latitude was 8° 42′, and we calculated our longitude, by altitudes taken at five o'clock, to be 252° 02′. On the 23d of February we perceived Poolo Timoan at daybreak, bearing S. W. by S. The top of the island was not, however, visible. At nine we likewise saw Pambelang* and Wawoor bearing S. half W. At noon the middle of the island of Timoan bore S. W. 51°. Pambelang S. W. 22°, and Poolo Wawoor (by some called Poolo Aor) due south. We were then in latitude 30° 6′ 30″, and longitude 255° 16′ 00″: by these observations we discovered a current, during the last twenty-four hours, of eleven miles south, and seven miles westward. The depth was thirty-nine fathoms. Our distance from Poolo Wawoor thirty-seven miles and a half. This island lies in latitude 2° 29′ N., and our timepieces gave for its longitude, by No. 128 = 255° 16′ 00″, by No. 1856 = 255° 20′, and by Pennington's watch 255° 17′ 30″. The true longitude of the island, which I have discussed in the note to page 361, is 255° 24′ 38″. This makes the error of our watches + 8′ 38″, + 4′ 38″, and + 7′ 08″.

At four in the afternoon the north extreme of Timoan bore due west. The ship's way since noon, allowing for a southerly current of half a mile an hour, made the latitude of this end of the island 2° 56′ 30″ north. At fifteen minutes past three the

* This island is also called Pissang, but the name of Pambelang should be preferred, as there is another island in the straits of Malacca called Pissang.

south point of Timoan bore west, and allowing for the same direction and rapidity of current, I calculated its latitude to be = 2° 45′ 30″. At eight in the evening I conceived myself sufficiently far from Poolo Wawoor, and shaped my course S. S. E. for Poolo Totty. At daybreak, we again perceived four ships, which we had seen the preceding day, and which appeared to be making for the straits of Malacca. Our observation at noon in 1° 25′ 13″ N., and 254° 42′ W., shewed a current of rather more than a mile an hour due south. At three in the afternoon we took several sets of lunar observations, which reduced to noon gave = 254° 38′ 45″, 2′ 35″ to the westward of N°. 128. At eight in the evening I altered my course to S. E., in order to pass the Dogger bank at a greater distance in the night. At two the next morning I reckoned myself in the parallel of this shoal, which lies, according to the observations made on board the English ship Ganges, in latitude 0° 37′ north, and longitude 254° 30′ west; but by our observations at noon, the current had driven us a mile and a half an hour to the southward, and a little to the eastward, and I now steered S. by E. and S. On the 24th of February we crossed the line at six o'clock in the morning, in longitude 253° 50′. A little before noon we saw Poolo Totty to the S. W., and about two o'clock Poolo Doran. At ten minutes after three Poolo Totty bore west, and if I admit a current of one mile and a half an hour to the southward, this island will lie in 0° 57′ of south latitude. Poolo Doran then bore S. W. 79°, but at four o'clock due west, and Totty 79°, which makes the latitude of Doran 1° 01′ south. From noon until three o'clock our course was S. W. by S., but I now steered S. by W. to gain sight of the north extreme of Banka before dark, and, in fact, we saw it at five o'clock to the

southward. We had eighteen fathoms, and seventeen and a half, over a bottom of fine blue sand and small shells; and I altered my course to the S. E.; the wind being very moderate. In many places the water assumed a yellow colour; and in others it was clear, with long straight lines of fish spawn: precisely such as was before observed here by Captain Lestock Wilson, but we did not notice much alteration in the depth of the water. Finding, by calculation, a strong stream to the southward, I steered S. E. during the night under easy sail, but was surprised to perceive in the morning that it had not carried us at all to the southward, probably owing to some change of the tide. At five in the morning a projecting point in the island of Banka bore west, and another at the same time S. W. 20°; the latter I conceived at first to be the eastern point of Banka, but was soon aware of my mistake, finding it what Wilson calls Bluff point, which is entirely omitted in Fleurieu's chart of the straits of Malacca. To the southward of this point is cape Breakers, and between them, as I imagined, a deep bay, for we could not distinguish any land. The coast on both sides became gradually flat, and in front of the southern cape there was what appeared to be an island, though it very possibly may join the main land. This part of Banka is very incorrectly drawn in all the charts: the only draught of the coast that bears any resemblance to ours being the copy of an old chart, No. 7, in the sixth volume of Dalrymple's collection of nautical charts, where Banka is called China-Bata, a name which is also given to the strait of Gaspar. At noon we were in 2° 03′ 30″ south, and conceiving myself at a sufficient distance from the rock seen by the French ships Le Mascarin in 1773, and Le Solide in 1792, I now steered for the east point of Banka,

until I brought the island of Gaspar to bear due east. By this means the dangers existing to the N. and N. W. of Gaspar are avoided, and a ship may steer between the east point of the island of Banka, and the rocky island called Tree island in the English charts, on account of some trees that are very apparent upon it*. At nine in the evening we had brought the east point of Banka to the west. I now steered south, and at eight o'clock we came to an anchor in eighteen fathoms water on a bottom of fine sand. As long as we steered S. E. ½ E. between Banka and the Rock island we could get no ground to adhere to the lead, all of it being washed clean off; but we had scarcely altered our course to the southward, when it shewed at first a coarse, and afterwards a fine sand. This, I imagine, arises from the strong current running here S. S. E. and S. E. from one and three quarters to three miles the hour; which being stronger at the bottom, by its rapidity washes off the sand on the lead, unless it is that the current has cleansed the rocky bottom, leaving no sand nor small pieces of rock to adhere to it. On the 27th at daybreak we again weighed anchor, and passed the straits of Gaspar, between the south-east point of Banka and the Middle or Passage island. A reef of rocks runs for three miles and a half from the south-east point, but we were unable

* Fleurieu rejects the name of Tree island, because the few trees from which it is derived might easily disappear, and render it improper. He prefers that of *Rocher Navire* (Rock Ship), from a resemblance that it does, and always will, bear to a ship under sail. Marchand Voyage autour du Monde, 2 tome, page 189, in 4to. Fleurieu is not wrong in rejecting this name: once before the name of Tree a'top was given to an island on the north coast of China, on the passage to Chusan, but the tree no longer exists, and the navigator would seek in vain for what is to direct his course.

to perceive any thing of it; the flood-tide having probably covered it. I kept at the distance of a mile and a half or two miles from the Passage island, our soundings shewing a depth of from twenty-seven to thirty-five fathoms, which is greater than what I have found marked in any chart. In case of a moderate wind I do not think it advisable to approach too near to Passage island, a strong current setting in that direction; though there is no danger of nearing it with a fresh breeze. At noon we were quite out of the straits, the weather was thick, with alternate gusts of wind and calms. Throughout the day we obtained no observations. At four o'clock a fresh breeze sprang up at N. W., and we now steered a south-westerly course to fetch the coast of Sumatra, as I suspected a strong current to the S. E. At night a thunder-storm overtook us, with heavy rain. At daybreak we again saw four ships; probably the same that we had seen near Poolo Wawoor, and which must have passed the straits of Banka.

I chose the straits of Gaspar, which appeared to me to possess many advantages over those of Banka, although not so frequently navigated. The passage of them is altogether as safe as that of the latter, by observing the instructions given in Captain Lestock Wilson's chart, No. 8, in the sixth volume of Dalrymple's collection of plans and charts. The most complete draught, however, of these straits is that of Fleurieu in the atlas to Marchand's voyage published by him; the value of which is increased by the very instructive analysis given of it in the second volume of the text, page 107, 210, and the more so, as Dalrymple's Nautical Memoirs, from whence Fleurieu derived the chief materials for the construction of this

chart, are become extremely scarce. The navigation of the straits of Gaspar is attended with much less difficulty than that of Banka; and it is seldom necessary to anchor more than once, as was the case with us (nor is this at all times unavoidable), while the straits of Banka cannot be passed in less than three or four days, and a ship must cast and weigh anchor at every change of the tide: a labour, in this hot climate, extremely prejudicial to the health of the crew. Large ships, too, not unfrequently take the ground on the two banks at the northern and southern extremities of the island of Lucipara: besides, the currents in the straits of Banka are rapid and irregular, the climate, owing to the low and swampy shores of the coast of Sumatra, being very unhealthy, the passage through them generally laying the foundation of those diseases which so frequently prove fatal in the straits of Sunda. On our departure from China we had sixteen sick; a third of the whole crew: but we experienced the good fortune to see them all gradually recover during the voyage across the Chinese sea, and the last of them disappeared from the sick list on the very day of our anchoring at the entrance of the straits of Sunda; a piece of good fortune which, I doubt, would not have attended us if we had preferred the straits of Gaspar to those of Banka.

At ten o'clock we perceived the flat coast of Sumatra from N. W. 60° to S. W. 86°. I steered a S. S. W. course in a depth of ten or twelve fathoms, until this suddenly decreased to six fathoms, which made us uneasy lest we should have got upon some unknown bank, but by following a more easterly course we soon got into deeper water. In about another hour we again had seven fathoms, and six and three quarters, which compelled us

a second time to take a due east course. This seems to prove, that when the coast of Sumatra is seen even on the clearest weather from the mast-head, the course to the passage between the Two-Brothers* and the coast of Sumatra should never be to the westward of south. I suspected here a strong current to the eastward, which made me follow a too westerly course during the night; but our observations at noon proved a current of twenty-eight miles in the twenty-four hours in a due southerly direction. At one o'clock we perceived from the mast-head the Two Brothers bearing S. S. W.: at six, when just in the middle of the narrow passage between them and the Shabunder reef on the coast of Sumatra, the sky became suddenly overcast, and we had a heavy thunder-storm with rain. At seven the Brothers were to the eastward of us, at the distance of a mile and a half; just at this moment there was a pretty violent squall, which being followed by a calm that bore the appearance of lasting, I made signal to bring to, and at half after nine we dropped anchor in eighteen fathoms over a ground of clay: the Brothers at the time bearing N. E. by N. ½ E.

The next morning, the 1st of March, we got under sail at day-break with a fresh breeze at W. N. W. and dirty weather. I steered S. S. W., and S. W. by S. to keep as near as possible to the coast of Sumatra, determining to make for the passage between Zutphen island and Stream island, which appeared to me preferable to that between the coast of Java and the island

* These two islands are called by the English the Brothers, and by the French the Sisters.

Thwart the Way. At noon we were in 5° 38′ 34″ of south latitude. Cape St. Nicolai, in the island of Java, bore S. E. 20°. North island S. W. 64°, and Button island S. E. 11°. At one in the afternoon the wind fell, and the tide, which had hitherto run to the southward, turned about the same time, and put us fast to the northward, obliging us to come to an anchor about two o'clock in twenty-four fathoms; North island at the time bore N. W, 17°, distant about three miles, Button island S. E. 26°.

The meridian distance between Poolo Wawoor and North island we found by No. 128 = 1° 13′ 40″; by Pennington 1° 15′ 45″, the mean therefore 1° 14′ 41″. Captain Lestock Wilson found it 1° 14′ 45″*, a difference of only three seconds in the average. It was, therefore, only necessary to ascertain, as correctly as possible, the longitude of Poolo Wawoor. At page 361 I have taken it at 255° 24′ 38″; this would make the longitude of North island 255° 24′ 38″ — 1° 14′ 42″ = 254° 09′ 54″, or in round numbers 254° 10′ west. By Captain Wilson's observations and our own the island lies in latitude 5° 41′ 00″ south.

The next day the wind was southerly and moderate; and the weather uncommonly hot, which induced us to continue the whole day at anchor. On Monday the 3d of March we had a fresh breeze early in the morning at N. W., and I immediately

* Remarks on a passage from Poolo Wawoor to the straits of Sunda by the Macklesfield strait on the east of Banka, with the journal of the Carnatic Captain Lestock Wilson, in the 5th volume of Dalrymple's Nautical Memoirs, pages 53 and 54.

gave the signal to weigh; but both ships were scarcely under sail when the wind veered to the southward, blowing very faintly, sometimes from the S. E., sometimes the S. W. However, as the current ran strong to the southward I conceived it not impossible to work the ship out, nor could I, in fact, easily prevail on myself to cast anchor in a depth of nearly thirty fathoms, as the Neva had already been compelled to do. About ten o'clock the wind freshened at S. W., and with the assistance of this fresh breeze, and the strong southerly tide, we worked between Zutphen island and Stream island, which lies nearly in the middle of the passage between Sumatra and Thwart the Way. The tide soon carried us through, and a little after midday we had brought Stream island to the northward of us. This passage appears to me to possess many advantages over that along the coast of Java, where, besides the dangerous shoal called Brewer's sand, are several reefs and sand banks between Button island (called by the French Grand Toque), and Thwart the Way island, which are indeed mentioned in the notes on the navigation of the straits of Sunda, although they are not described in any chart, notwithstanding there can be no doubt of their real existence*. By passing the Zutphen channel you have the farther advantage of getting so much more to the westward; which in navigating the straits of Sunda is of some consequence, as the wind instead of being N. W., as it regularly ought to be from the month of November until April, is frequently S. W. and

* The dangers which are not marked in the charts are a rock of fourteen feet under water, a mile to the S. W. of Button island, and a reef of seventeen feet N. W. by N. two miles from the same island. See the Oriental Navigator, or Directions for sailing to and from the East Indies, China, &c. a second edition 1801, page 414.

even south. This channel has already been recommended by some captains of the English East India company whenever the wind should prove favourable; but I look upon it as infinitely preferable to that of Bantam even with a foul wind, provided the tide is fair, because the only danger to be avoided, the Stream-rock, appears always above water, while in the Bantam channel a ship cannot be worked without considerable danger, owing to reefs, the position of which is not sufficiently known. She would certainly be in an unpleasant situation, if it should fall calm when in the middle of the channel; but it would be equally bad in the passage on the Java side, where the depth of water is fifty fathoms over a rocky bottom*. This channel is far preferable for ships coming from the north; but coming from the southward during the S. E. monsoon, the other may have the preference, although even in this case I should myself choose the Zutphen channel.

The south-west tide continued until about four o'clock, and then changed to the N. E. Conceiving it my duty to wait for the Neva, I was compelled to seek an anchorage for the night, and at half past seven brought to in thirty-two fathoms, on a sandy ground between the islands of Cracatoa and Tamarin, which bore S. W. 60°, and N. W. 63° of us. During the night we found the tide ran N. N. E., N. E., and E. N. E. half and three quarters of a knot the hour. At ten o'clock the next morning a light air sprang up at N. W., when I immediately got under weigh, in

* The Richmond, an English ship, anchored during a calm in the Zutphen channel near Zutphen island, where she found forty-eight fathoms water, over a slimy bottom.

the full assurance that the Neva would take advantage of this breeze; but she had probably a different wind, and I was obliged, on her not appearing, to anchor again at night. At seven o'clock, therefore, we dropped anchor, in twenty-one fathoms, on the east side of Cracatoa, over a bottom of fine clay. Peak Tamarin bearing N. W. 20°, and the peak of Cracatoa S. W. 48°. At night we found the tide run very slack to the N. N. E. at the rate of scarcely half a mile the hour. On the 4th of March, at four o'clock in the morning, the wind blew fresh from N. N. W.; at half past five we got under sail, and, as it appeared likely to last, I resolved upon sailing between Cracatoa and Prince island, a passage which, with a fresh north wind, is very much superior to that between Java and Prince island. At day-break we saw the Neva to the S. E. a considerable way to leeward: and as it was impossible for her to follow the Nadeshda, I gave up my intention, to avoid a separation of the two ships, and took my course between Prince island and the coast of Java. At three in the afternoon the wind fell, and at five it was a dead calm. Our situation was very precarious; we were at the time exactly between the rocks at the southern extremity of Prince island, and one on the coast of Java called the Friar, from whence a number of others of considerable size extend to the southward, in the vicinity of which there is no anchorage; and towards these rocks the tide was hurrying us. I lowered a couple of boats to keep the ship as much as possible from them, their distance at this time scarcely exceeding a mile; but towards nine in the evening the sea ran so high that the boats were of no service: the ship was evidently driving on the rocks, and I began to entertain considerable alarm for her safety. Fortunately, at about half past ten, a gentle breeze arose from the north that snatched us

from the impending danger, and by midnight Java head lay to the eastward of us.

We found the meridian distance between the peak on Cracatoa island and Poolo Wawoor to be, by our timepieces, = 1° 2′ 10″; and as that between Poolo Wawoor and North island is precisely the same, as Captain Wilson found by a number of chronometrical observations, I think I may conclude that the meridian difference, which our watches made two days before between Poolo Wawoor and the peak of Cracatoa, must be correct. This would make the situation of the latter 255° 24′ 38″ — 1° 2′ 10″ = 254° 22′ 28″ west. The peak on Prince's island lies by our watches 11′ 10″ more to the west of the latter: which would make the longitude of Prince's island 254° 22′ 28″ + 11′ 10″ = 254° 33′ 38″ west. Captains Cook and King laid down the longitude of their anchorage at the south-east extremity of this island as 254° 42′ 30″, and the meridian difference of the two islands of Cracatoa and Prince island 18′ 30″, which appears to me too much, although I do not willingly differ from such authority; but our numerous observations for the longitude by our timepieces, and their exact agreement with the rhombs and angles, prove that the distance cannot exceed what we have made it*. Other navigators have likewise found the meridian

* Captain King, in the third volume of Cook's Third Voyage, page 471, of the original edition in 4to. lays down the peak of Cracatoa in 6° 06′ south, and 105° 15′ east; at page 472, however, he makes the longitude of his anchorage 105° 36′. The first of these must evidently be a misprint, the whole island being only nine miles in circumference. Wales, the astronomer, in his "Astronomical Observations made in the Voyages," &c. page 143, published in 1738, makes the longitude of this island 254° 24′.

difference of the two peaks to be less: in the observations, for instance, imparted to me by Captain Mac Intosh, I find that Captain Horsburg makes it 14′; the longitude of Cracatoa being, according to him, 105° 37′, and that of Prince island 105° 23′ east.

Nothing ever excited my astonishment more than the pitiful charts of this celebrated strait in the East India Pilot; a voluminous, but irregular collection, published in 1803, of charts of the Chinese and East Indian seas, in which a few very good new ones are lost among a number of old and incorrect copies. In one of these, for instance, the north end of Prince island lies in 6° 18′, at least twelve minutes too much to the north; while, on the other hand, the south end is placed in 6° 33′, although Captain King mentions the latitude of his anchorage, which was several miles to the northward of the south point, as 6° 36′ 15″. A mere comparison of one with the other is not likely to inspire much confidence, and no one will, therefore, make use of them without the greatest precaution. The best chart of the straits of Sunda, and even this has its errors, is the one copied from Dapré's, in the same collection, according to which, the meridian difference between Cracatoa and Prince island is twelve miles. I know of no other charts of these straits except the sketches by Captains Wilson and Bampton, in the sixth volume of Dalrymple's Collection of Nautical Plans, which are drawn with the greatest accuracy; but these only introduce the northern entrance of the straits.

CHAPTER XIII.

PASSAGE FROM THE STRAITS OF SUNDA, UNTIL THE ARRIVAL OF THE NADESHDA AT CRONSTADT.

The Nadeshda and Neva quit the Coast of Java—See the Christmas Islands—Cross the Southern Tropic—Errors of our Chronometers proved by lunar Observations—We part Company from the Neva—The Nadeshda weathers the Cape of Good Hope—Arrives at St. Helena—The Neva not there—Remarks on St. Helena—No Foreigners permitted to visit the Interior—Reason of this Order being lately strictly enforced—Unfortunate Occurrence on board the Nadeshda during her Stay at St. Helena—She puts to Sea—The Advantages of crossing the Line on the Return from the East Indies near America rather than more to the Eastward—The Opinions of Captain Cook and of Dapré hereupon—Variation of the Compass at the Equator compared with former Observations—Nicholson's Rules for crossing the Line—We get the North-east Trade Wind—Pass the Northern Tropic, and soon after lose the Trade Wind—Course to the North of Scotland—Rockall—We obtain Sight of the Orkney and Shetland Islands, and sail between them—Fulo, Fairhill, and Cape Hangcliff—Trifling Error of our Timepieces by Lord Mulgrave's Longitude of this Cape—We fall in with an English Corvette and a Frigate—From the latter we learn that the Neva had left England for Cronstadt under Convoy of an English Cutter—Perceive the Coast of Norway—Arrive at Copenhagen—Are visited by His Royal Highness Prince Ferdinand of Denmark—Departure from Copenhagen—Arrival at Cronstadt on the 19th August, 1806.

At daybreak we joined the Neva, which had the good fortune to get entirely out of the straits before the calm commenced. At noon we were in latitude 7° 14′, and longitude 254° 43′ 56″; the peak on Prince's island at that time bearing N. E. 15°, and Java head N. E. 50°. It was the southern and

easternmost land that we could see of Java, that I took for Java head; from the first point of which, called the Friar, from a large insulated rock that distinguishes it, there are three other promontories in a S. E. direction. We passed along the coast at night, and therefore saw nothing except these three headlands, of which, I believe, it is not accurately determined whether cape Java is the southern or the northernmost, but I imagine it to be the former. Bayley, the astronomer, makes the meridian difference between cape Java and Prince's island eight minutes, which appears to me too little.

The peak on Prince's island served as our point of departure; it lies, by our observation, in 254° 33′ 38″ of west longitude, and I conceive its latitude to be 6° 34′, or 2′ 15″ north of Captain King's anchorage; a calculation which made the ship's distance at noon from our point of departure forty-one miles. Towards evening we lost sight of the coast of Java, and I steered as much to the southward as the wind would permit, it blowing fresh from the westward, and W. S. W. with heavy rain. During the night of the 7th March we met with violent squalls, rapidly succeeding each other, with constant rain: I hoped that this stormy night would be followed by a change of the western monsoon for the south-east trade wind, but the wind veered suddenly to W. S. W. On the same day at four in the afternoon the Neva made signal for land, bearing S. E. by S. just as we ourselves saw it S. E. by E. It was Christmas island, and appeared about thirty or thirty-five miles off. According to the latest observations of Lieutenant Davidson, of the brig Waller, in 1803, this island lies in 10° 32′ S., and 105° 33′ E., precisely the situation assigned it in Robertson's chart. Dal-

rymple has adopted the mean of Captains Cooper and Cumming's observations as the longitude of this island; the first of whom places it ten miles east of cape Java; the latter exactly in the same meridian. By adopting Captain Bayley's longitude of cape Java, 105° 05′ E., that of this island would be 105° 14′ 30″; but our timepieces would make it nearly forty miles to the eastward of this, if Lieutenant Davidson's latitude, 10° 32′, is correct. Being desirous of obtaining a nearer sight of the island, I altered my course to S. by E.; but about six o'clock we lost sight of it until midnight, when we saw it by the clear light of the moon bearing due east, and at day-break N. E. 45°. It was now too far from us to determine any thing with accuracy as to its situation; both its height and size appear considerable. At noon we had no observation.

On the 11th, 12th, and 13th March we had frequent calms, with very hot, sultry weather. We availed ourselves of the clear tranquil weather to take lunar observations on each of these three days. Those of the 11th, as well as of the 12th, made the error of No. 128, and of Pennington's watch which, on the 12th March, agreed to a second, one minute east; and on the 13th, on the contrary, they made it 6′ 30″ W., the same as Dr. Horner found within 2′ 30″. The observations of these two days seem to prove the error of the timepieces to have been very trifling, and, consequently, that the longitude of Cracatoa and Prince island is pretty accurately determined, although this might have been concluded from the longitude deduced from Poolo Wawoor. The calms continued until the 15th March, with occasional gentle breezes from the south-west; the weather was very hot, the air sultry and oppressive. The sea, during

the last two days, set so strong from the south-east to the north-west, that I calculated its impulse at ten or twelve miles a day. At last, on the morning of the 15th we got a fresh breeze from the S. E.: at noon we were in latitude 12° 26′ 48″ S., and longitude 258° 34′ 40″ W.; and in the evening we met with heavy squalls and rain. After this change of weather we found that we had the true trade wind, nor did it quit us, but blew so fresh as frequently to oblige us to double reef our top-sails. My course was S. W. by W., W. S. W., and W. by S. On the 27th March, at two in the afternoon, we crossed the southern tropic, in longitude 296° 55′. On the 30th, in latitude 25° 52′, and longitude 304° 04′, we expected to lose the trade wind, which veered gradually to N. E. and N. W., blowing fresh, with thick rainy weather; but this north-wester only lasted a few days; and on the 3d of April shifted again to the south and east, when it continued to blow from the eastward with fine clear weather.

On the 15th April it blew strong at E. S. E. with rainy weather. The ship, under close reefed top-sails, ran nine knots and nine and a half, but notwithstanding this fair wind, we parted from the Neva. At ten in the morning we distinguished her under top-sails at a short distance astern, but owing to the thick weather we soon lost sight of her; and at four in the afternoon, when it cleared up, she was nowhere to be seen, even from the mast-head. Although our ship sailed much worse than the Neva, it was hardly probable that with less sail than we carried she should have run us quite out of sight in the short space of six hours, and our separation could therefore be only attributed to the very different course the Nadeshda had steered since ten o'clock, namely, W. by N. This I pur-

sued until seven in the evening, firing several signal guns, and burning a blue light every three hours during the night, but we got no answer; and our separation, at least until we should reach St. Helena, where we were to rendezvous, appeared certain. On the day of our separation at noon we were in latitude 34° 55′, and longitude 331° 28′, and we crossed the three hundred and sixtieth degree of the St. Petersburgh meridian; which completed our circuit round the globe.

On the 17th April, at eight in the morning, we perceived a change in the colour of the water. On sounding, we found eighty fathoms over a bottom of fine grey sand, which proved that we had had a strong current to the westward, as was confirmed by our observation at noon in latitude 36° 00′, and longitude 338° 20′, when we found it had been seventeen miles in the last twenty-four hours to the southward, and 1° 20′ W. Rennel is, I believe, the only one who advises that ships should not be kept too near the coast, but in the course of the stream, the direction of which he points out in his chart, in conformity with which I kept from the meridian of the two hundred and thirty-second degree to that of the three hundred and fortieth, in the parallel of 35° and 36°, and found his opinion just; the strength of the current to the westward being equal to three miles and a quarter the hour. At six o'clock we hove the lead in seventy-five fathoms on a fine grey sand; at midnight in ninety fathoms, and at four in the morning in one hundred and five fathoms, the bottom of fine clay. This latter depth shewed that we had passed the meridian of cape Lagullas.

On the 19th April, at nine o'clock in the morning, we saw

land bearing N. N. E. by compass. It had the appearance of an island; and soon after we perceived high mountains in the direction of N. E. by E. At noon we were by observation in 35° 05′, and 340° 41′ 24″. The land to the westward, which was the Cape of Good Hope, bore N. E. 7°, and the easternmost, cape Falso, N. E. 85°: we could not strike ground with a line of two hundred fathoms. Being exactly in the meridian of the cape which, by the best observations, lies in 18° 29′ east, or 341° 31′ of west longitude, we were now convinced that our time-pieces were about a degree to the eastward, a correction which we adopted until our arrival at St. Helena. We here spoke with an American from the Isle of France, but he could give us no information of Admiral Linois' squadron, which had been cruising for some time in this latitude. We saw another ship which likewise hoisted American colours. At six in the evening the Cape of Good Hope bore N. E. 35°, distant about thirty-six miles; cape Falso N. E. 48°, and Table mountain N. E. 23°. The wind blew fresh at S. S. E.; I steered N. W. until four o'clock, when I altered my course to N. N. W. in the direction of the island of St. Helena. In the twenty-ninth degree of latitude we were struck with the coolness of the air: the quicksilver in the thermometer not rising even in the day-time above 12°; and in latitude 27° it only rose to 14°, a degree of warmth which was exceeded even in the thirty-sixth degree of latitude. In 26° 30′ the wind veered to W. and W. S. W., and continued so for two days; but we had scarcely crossed the southern tropic when we met with the true trade wind S. S. E. and S. E. On the 26th of April we distinguished two ships, one bearing N. W., the other N. E. of us; the first of which appeared to be the Neva, at least on board our ship we had no

doubt that it was, but owing to her superior sailing we soon lost sight of her*.

On the 29th April we had made three hundred and sixty degrees of the Greenwich meridian from east to west. I therefore altered my reckoning; and as we had lost a day, called the next the 1st of May. On the evening of the 3d, at about six o'clock, we perceived St. Helena bearing W. N. W., distant about forty miles: we lay-to during the night, and the next morning at day-break were about twenty miles from land. At nine o'clock I sent Lieutenant Löwenstern on shore to the governor to inform him of our arrival. We stood off and on under easy sail until eleven o'clock, when I followed with the ship, and at half past twelve cast anchor in the bay of St. Helena; after a run of fifty-six days from the straits of Sunda, and of seventy-nine from Macao. The depth of water was thirteen fathoms, and we dropped our second anchor to the N. W.

We did not find the Neva here, and there was only one English merchant ship in the bay, which is seldom as deserted as it now appeared. We learnt that only twenty-four hours previous to our arrival Sir Home Popham had sailed with a considerable fleet to the conquest of Buenos Ayres, an expedition much condemned by the people of this island; we likewise heard of the recent renewal of hostilities between France and Russia.

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* Several officers on board the Neva recognized the Nadeshda, and wished, in vain, that we might join, as I learnt upon our arrival at Cronstadt.

I found the governor, Colonel Patton, a very polite, obliging man, who received us with the utmost attention, and offered, with the greatest kindness, every thing he had to give. He directed the crew of the Nadeshda to be provided every day with fresh meat, and tendered a supply of flour, an article we stood very much in need of. Our stock of biscuit had greatly decreased, that from Ochotsk being now so bad that I could no longer give it to my crew; but the scarcity of flour was so great in the island that none was allowed to be sold even to the inhabitants, the late capture of the Cape, and the expedition to the Rio de la Plata, having, entirely exhausted the magazines. I was obliged to take this circumstance into consideration, and I hoped with a speedy passage and some economy to make our own stock last until we reached Copenhagen.

I know of no better place to get supplies after a long voyage than St. Helena. The road is perfectly safe, and, at all times, more convenient than Table bay or Simon's bay at the Cape. The entrance, with the precaution of first getting near the land, is perfectly easy; and on quitting the island nothing more is necessary than to weigh anchor and stand out to sea. Every kind of provision may be obtained here, particularly the best kinds of garden-stuffs, and in two or three days a ship may be richly provided with every thing. Porter and wine, especially Madeira, were in great abundance, as well as all sorts of ship provisions, such as salt meat, peas, butter, and even naval stores. Nothing can exceed the convenience for watering; in twenty-four hours a ship is supplied with the greatest facility with a complete stock, and in eight and forty may again proceed on her voyage. St. Helena is, in every respect, preferable for ships

returning to Europe to the Cape of Good Hope, as purchases there are not so certain, and are attended with considerable delay. The price of necessaries is, in truth, high at the former, and dearer, perhaps, considering all things, than at any other place whatever. We paid, for instance, three guineas for a sheep weighing from eighteen to twenty pounds, one guinea for a sack of potatoes of one hunded pounds weight; fowls and ducks cost half-a-guinea a piece; a dozen eggs one dollar, and other things in the same proportion. King's ships, and those of the East-India company, pay nothing for water upon anchoring here. English merchant ships pay at the rate of five guineas, and foreigners * the double. Foreigners are not allowed to go beyond the town, and as this consists of only one street, the walk for strangers is very confined; the regulation, however, generally speaking, is not very strictly adhered to, many exceptions being made in their favour, particularly with naturalists. A circumstance had, however, recently occurred, which seemed to prove the necessity of its exact observation. A foreigner, who gave himself out as a botanist, but who, in reality, was an engineer, remained some time in the island. Under various pretexts he prolonged his stay for several months, during which he succeeded in obtaining the friendship of the governor and his family, and at length was allowed to visit the interior, where, instead of making botanical collections, he drew plans of all the batteries and forts. The ship on board of which he returned to Europe was taken by the English, and his scandalous deceit discovered; since

* I was assured that even foreign ships of war are obliged to pay these duties, the island not belonging to the government, but to the East-India company; nothing, however, was allowed to be demanded of us.

which time the governor has found himself compelled to be more strict in regard to the orders of the East India company than his inclination would otherwise have made him: at all events, he appeared to regret that he could not allow Dr. Tilesius to make a botanical excursion in the island. An exception had, indeed, been made a few weeks before in favour of a Dr. Lichtenstein, who happened to be at the Cape at the time of its capture by the English; but he had brought particular recommendations from Sir David Baird, the governor of the Cape, which procured him the permission to visit the whole island.

The daily observations on board the ship by Dr. Horner, made the latitude of our anchorage . . 15° 54′ 48″ S.

Our time-pieces, with the new rate assigned to them at the Cape of Good Hope, made the longitude of our anchorage, according to No. 128 . . . . . 5° 28′ 30″ W.

By Pennington's watch 5 34 40

No. 1856 . . . . . 5 31 15

The true longitude, as adopted by Dr. Maskelyne from the meridian difference of the Cape, calculated by Mason and Dixon, is . . . 5 49 00

Dr. Horner determined the rate of our time-pieces at Canton, when No. 128 was = 4° 26′ 20″, and No. 1856 = 3° 47′ 15″. The error of No. 128, therefore, in a space of three months, during which we had frequently changed the temperature of the

climate, was = 1° 22′ 40″. Between the Cape and St. Helena, a passage of fourteen days, an error had crept into the ship's reckoning of three and a half degrees west, which arose from the constant current to the S. E. The total of all the errors to the southward amounted to 1° 31′. The variation of the magnetic needle, which was ascertained by several sets of azimuths taken every evening, varying from 16° 57′ 40″ to 17° 28′ 00″ was, in the mean, 17° 18′ 10″ W.

We remained four days at St. Helena, and our stay here, in every other respect extremely pleasant, was attended by an accident as melancholy as it was unexpected: our second lieutenant, Golowatscheff, a fine, elegant young man, only twenty-six years of age, and an admirable officer, having put a violent end to his existence. About an hour before the perpetration of the act I left him on board the ship, apparently composed, but I had scarcely reached the shore when word was brought me that he had shot himself. Since our departure from Kamtschatka I had observed an alteration in his manner, originally occasioned by some misunderstandings and unpleasant explanations, the account of which cannot, however, be interesting to any one. All my endeavours to divert him from his increasing melancholy proved fruitless; but no one in the ship imagined that this would have led to an act of self-murder, and, particularly, so shortly before the termination of our voyage. I had hoped that on his return to his parents, relations, and friends, he would soon have recovered from a disease arising from a heated imagination. On board the ship there was no chance of such recovery; for neither could I, although I invariably treated him with the greatest kindness and attention,

nor any of his comrades obtain his confidence; all attempts to relieve him from his erroneous opinions being of no avail. The governor directed him to be buried with the military honours due to his rank; and Mr. Wilkinson, the clergyman of the place, performed the funeral ceremonies without the least hesitation.

Having received positive information here of the declaration of war between Russia and France, I regretted very much that Captain Lisianskoy, in neglect of my positive orders, should have passed without touching at St. Helena. Our mutual safety required that we should not separate. I had no doubt that the passports given us by the French government would have protected us, even in case of hostilities, from any hostile attack on the part of their ships of war; but the same consideration cannot always be expected from privateers, even when the orders of their government are placed before their eyes. I had left some of my guns in Kamtschatka, and it was a mere matter of precaution to replace them if possible; I therefore requested the governor's assistance to enable me to do so. He offered most willingly to provide me, and examined himself his magazines; and when I fancied I had found some of the proper calibre, he made them over to me with all their apparatus, but it proved, upon trial, that we could turn them to no account, and we were obliged to sail with only twelve guns. Being alone, I thought it best not to run through the English channel, in which direction most of the French privateers cruise; and after passing the Azores, I steered for the northern point of Scotland, intending to gain the North sea by the passage between the Shetland and the Orkney islands.

This necessarily rendered our voyage somewhat longer; but in the present circumstances it appeared to me to afford a greater prospect of safety.

On the 8th of May, in the morning, I weighed anchor, but did not sail until the evening, as I could not refuse the invitation given to myself and my officers by the governor to dine that day with him. At midnight we left St. Helena with a fresh S. S. E. wind; but as it soon died away, we were still in sight of the island the next morning, until shortly after we lost it in the haze. Nothing of any consequence occurred on our passage to the equator.

On the 19th May, at about half past five in the evening, we saw in latitude 2° 43′ S., and longitude 20° 35′ W., in the direction of N. N. W., and at the distance of about twelve or fifteen miles, a singular phenomenon, but which, owing to the lateness of the day, we were unfortunately unable to examine sufficiently close to ascertain the nature of it. A cloud of smoke rose to about the height of a ship's mast; disappeared suddenly; then rose again, and vanished entirely. It could not be a water-spout, nor a ship on fire, as some persons on board conceived, for the smoke rose much too high; and Dr. Horner was of opinion that, if the whole was not an ocular deception occasioned by a refraction of the rays of light, it had all the appearance of a volcanic eruption, and was possibly the forerunner of some island.

On the 21st May we celebrated the festival of St. Nicholas, the protector of our fleet; and on the same day, at three in the

afternoon, crossed the line in longitude 22° 18′ 30″ W. The passage of the line in this longitude, or even more to the westward, on the homeward voyage to Europe, is not attended with any loss of time; for even by running so much to the westward a few degrees in so long a voyage, particularly in the higher latitudes, cannot make any difference, and experience has shewn that the winds in this direction are fresher; while more to the eastward there are frequent calms, and it is of itself a sufficient advantage to remain as short a time as possible in the unwholesome regions about the equator. I have, indeed, the authority of Dapré, of so much weight with every navigator, against me; but, in all probability, he thought more of a direct course than of the health of his crew. The current to the eastward which, it is well known, prevails on the coast of Africa, would certainly favour the passage to Europe; but so great a vicinity to the coast of Africa, where there are constant variations from tornados to calms, must evidently be pernicious to the health of the crew; and I know not whether this eastward current stretches as far to the west as the present usual course from St. Helena to the equator*, as I have only one example of it, besides my own experience. I believe, however, that, although of no considerable force, it exists, at least, between the Cape and the fifteenth degree of west longitude. Captain Cook says expressly in his third voyage, that when a ship crosses the line fifteen or twenty degrees to the eastward of St. Jago, that is to say, in the third or eighth degree of west longitude, the current will be found as strong to the eastward as it would be westward in the meridian

* Cook's third Voyage, vol. i. p. 48, orig. edit. in 4to.

of St. Jago, or even more to the west; for the nearer you approach the coast of Africa the stronger does the current set to the eastward. Ships passing the line on the boundaries of the east and westward currents, viz. in the eighth and twelfth degrees of west longitude, will not, therefore, find any remarkable error in their reckoning before they reach the parallel of the tenth degree of south latitude, as the eastward and westward currents will hitherto have been equal. This he had already experienced in his second voyage.

We found the variation of the compass on the day of our crossing the line, by several sets of good azimuths, in the morning 12° 8′ 45″, and in the evening 12° 7′ 15″ west. In the year 1795, Vancouver found it on the line in the meridian of 21° 35′ = 9° 20′ west, which proves an addition of two degrees and three quarters in a space of eleven years. On my return from China in the year 1799, the variation here was found to be 11° 33′; and in 1764, Nicholson found it on the line, in the longitude of 20° 40′ = 7° 56′, so that the variation of the magnetic needle in these seas is evidently increasing. This seems also to be proved by every known observation; and there is no part of the world where they can be made at sea with more accuracy than in the regions of the south-east trade winds, between the Cape of Good Hope and the equator, the sea being constantly calm, and the weather mild and beautiful. At St. Helena we found the variation of the compass 17° 18′ 10″; and in 1764, it was observed by Nicholson to be 11° 38′, an observation, the correctness of which cannot be doubted, his system being to deduce the longitude from such variation. It is, therefore, apparent from the observations made at St. Helena, and on the line, in the years 1764

and 1806, that in the space of forty-two years the variation of the compass has increased 4° 12′ and 5° 40′, amounting in the mean to nearly five degrees: notwithstanding which, in a work intended as a guide to the navigation to and from the East Indies (Oriental Navigator, or East-India Directions, last edition of 1801), the variation at the equator is expressly stated to be only half a degree more to the westward than in Nicholson's time; viz. eight degrees and a half. As the longitude at sea is no longer deduced from the variation of the compass, as recommended by Nicholson, this incorrectness cannot be attended with any evil consequences; but it is a matter of just surprise that, in England, where both in theory and practice navigation has been brought to such a high pitch of perfection, Nicholson's hypothesis should have been reprinted so lately as 1801, and that too incorrectly. (See the Oriental Navigator, pages 646—657.) His instructions for crossing the line on the voyage to India, with 6° 30′ and 7° 00′ west variation, but in returning to Europe, with eight degrees, might have been of use forty years ago, when the method of finding the longitude at sea by distances of the sun and moon was known to very few navigators, and, for a time, no great error was committed by pursuing them; but at present a variation of seven degrees would hardly be found on the coast of Africa.

On the 22d May, in the fifth degree of north latitude, and 23° of longitude, the sea, with a fresh breeze from the southward, was very strongly illuminated during the whole night; more, indeed, than we had seen it in all the course of our voyage. The waves communicated their brightness to the sails, and the whole ocean appeared wrapped in flame. In the year 1792 the same

thing was observed precisely in this part by Captain Garnault of the Ganges.

We did not fall in with the north-east trade wind until the 29th of May, when we reached latitude 6° 37′. Hitherto we had experienced the same unpleasant weather as usually prevails in the regions between the equator and the north-east and south-east trade winds. Our rigging was grown so bad as to stand in need of almost daily repairs, and even the shrouds of the lower as well as the upper masts were frequently breaking asunder. If the season of the year had not been so favourable, the critical situation of the ship might have occasioned us some uneasiness; for our main-yard, which had already undergone considerable repairs at Kamtschatka, was again found to be out of order. By the assistance and skill of our carpenter we were enabled, in some degree, to remedy the evil; but it was still only with the greatest precaution that we could venture to carry sail on our main-mast. In all other respects our voyage was perfectly uniform. The trade wind blew constantly from the east, north-east, and east by north: our course was in the direction of north by west, and north by west half west. On the 9th of June we crossed the northern tropic in longitude 63°. The sky was overcast, and the air tolerably cool, the quicksilver in the thermometer seldom rising to 20°; and although we had the sun nearly in the zenith, we could not complain of being oppressed by the heat.

On the 10th of June, in latitude 25° 30′, and longitude 37° 26′, we lost the north-east trade wind; nor did we, without considerable difficulty, get into the regions of the variable winds.

During ten days we had alternate calms and light breezes from every point of the compass, with a heavy swell from the northward: at length, about eleven o'clock at night of the 20th June we got a gentle wind from the south-west, after a calm of three days duration, during which, in the literal sense of the word, not a breath of air was perceptible. In these three days, to our great mortification, not a cloud obscured the heavens; the barometer, without the smallest variation, stood constantly at thirty inches fifteen; and the hygrometer, at thirty-five and thirty-six, shewed an unusual degree of dryness. In all this time we made daily experiments, both in the morning and evening, on the variation of the compass: six sets of azimuth observations, which varied from 12° 21′ 40″ to 14° 04′ 10″, and four sets of amplitudes, varying from 12° 07′ to 13° 53′, gave, in the mean, for 30° 30′ of north latitude, and 41° of west longitude, a variation of 13° 00′ 15″ west.

On the 1st of July in latitude 46° 35′, and longitude 29° 46′, we perceived, at day-break, a three-masted ship right a-head of us. For three hours successively she continued to manœuvre, first steering east, then to the westward, then bringing-to, till about ten o'clock, perceiving that we continued our course under all sail, she held her wind, and by two o'clock was out of sight. She was, in all probability, some privateer, which, doubtful for what to take us, at last thought it adviseable not to approach too near to us.

Kerguelen, in his voyage to the Northern ocean, gives, as the latitude of the island of Rockall, 57° 50′ N., and 16° 00′ as its longitude west of Paris: he does not, however, mention any

authority for this determination; nor did he himself see it in either of his two voyages in the years 1767 and 1768. In Verdun and Pingré's chart of the Atlantic ocean this island lies in 57° 30′, and 16° 30′ from Paris. These statements led me to believe an incorrectness in the situation assigned it, and I was desirous of obtaining sight of it*, but the wind, which had so frequently proved unfavourable to us in the course of this voyage, continued so upon this occasion. We could only have reached it with considerable loss of time; and as it was uncertain when we should get to the North sea, I could not venture to prolong our voyage, considering the scantiness of our supply of biscuit.

On the 12th July in latitude 59° 40′, and 9° 21′ west longitude, we spoke an English privateer, nine days from London. The captain, who came on board my ship, acquainted me with the recent hostilities between England and Prussia, which was the occasion of his present cruise.

On the 16th July we fell in with the English frigate Blanche, Captain Lavie. From him we learnt that three French frigates had been cruising for some weeks in this latitude, and had already captured several English Greenlanders; and that as one

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I have since found (p. 539 of the first volume of Collins's account of South Wales, orig. edit. in 4to.), that the island of Rockall was seen on the 16th June, 1798, by his Britannic majesty's ship, Britannia, Captain Raven, on her return from Botany Bay to England. Captain Raven determined its situation in 57° 59′ N., and 15° 50′ W. Kerguelen's calculation varies, therefore, nine minutes in the latitude, and only ten minutes in the longitude from the later observations.

of these frigates cruized more particularly in the vicinity of the Orkneys, the Blanche had been sent out in quest of her*.

On the 17th July, early in the morning, we discovered the Orkneys. At noon Mould head, on the island of Papa Vestra, bore S. E. 43°, and Noup head in the island of Vestra S. E. 14°. On the 18th, at two o'clock in the morning, we saw the island of Fulo N. E. 68°, and at four o'clock Fairhill, bearing by compass S. E. 60°. On this day we found the variation 27° 3′ 30″ west. The wind was moderate, flying between south-west and south south-west, which determined me to take the channel between Fairhill and the Shetland islands. The middle of this island bore due east, and we had the most favourable opportunity we could have wished of determining its latitude in an accurate manner. The day was clear, the horizon unincumbered, and the sun's altitudes could therefore be most correctly measured. These gave for the latitude of the island 59° 32′ 46″. Kerguelen places it in 59° 27′ 00″ (Relation d'un Voyage dans la Mer du Nord par M. Kerguelen Tremarée, Paris, 1771, page 150). The latitude of Fulo, which bore at the same time N. W. 6°, was found to be 60° 06′ 00″, and its longitude 2° 10′ 55″ W.: Kerguelen gives 60° 03′ as the latitude of this island.

A little after twelve o'clock it fell calm, and continued so the whole day. The people of Fairhill availed themselves of this circumstance to come on board in several boats, bringing fowls, sheep, fish and eggs for sale. They live, apparently, in the

* On the day after our falling in with the Blanche she met the French frigate, and captured her after an obstinate engagement.

greatest poverty, at least their ragged, tattered clothes appeared to indicate such a condition. Fairhill is a lofty island with craggy shores, and may be approached within half a cable's length. I learnt, to my utter astonishment, that this small, rocky, and apparently inhospitable island, contained two hundred and fifty inhabitants, whose appearance was fresh and healthy; and although they betrayed outward signs of poverty, the supply they brought us sufficiently proved that they were in no want of wholesome provisions.

In most charts ten o'clock is set down as the time of high water at the island of Fairhill at the full and new moon, but we found it later, and, in fact, that it could not be earlier than twelve o'clock in the channel between Fairhill and the Shetland islands. The fishermen told us it was at a quarter past eleven. The tide sets from the north-west; and the ebb, besides continuing an hour longer, appears stronger than the flood. It is of importance to know the exact time of their change in this channel, for if great attention is not paid to the ensuing change, and it should happen to fall calm, a ship might easily be driven on shore. The channel is not above twenty miles wide, and the tides at the time of the full and new moon run at the rate of from six to seven knots an hour. It continued calm all night and during the whole of the next day, on which account we remained in sight of Fairhill and the Shetland islands. On the 19th July at noon our latitude was 59° 46′ 56″ N., and 0° 39′ 41″ W. Scantness, the southern extreme of the Shetland islands, bearing at the time north-west 74°; Hangcliff, their easternmost point, N. W. 7°; and Fairhill S. W. 56°. Hangcliff at eleven o'clock bore due north, and its meridian

difference from Fulo, which twenty-four hours before was to the northward of us, was by our watches 1° 11′ 30″. The longitude of the island of Fulo, by the corrected rate of No. 128, was 2° 15′ 55″, that of cape Hangcliff therefore 0° 55′ 25″; according to Lord Mulgrave's observations, it is 0° 56′ 30″. (Voyage au Pole Boreale par le Capitaine Phipps, page 22.) The meridian difference between Hangcliff and Fulo was, at all events, determined with the greatest accuracy, and is 7½′ greater than in Löwenörn's chart of the Shetland islands. Scantness we found to be in 59° 50′ 45″ north.

On the 22d of July, at seven o'clock in the evening, we spoke the English sloop of war the Lynx, Captain Marshall, and on the 23d the Quebec frigate, Capain Lord Falkland. His lordship sent an officer on board, offering, in the politest terms, any assistance of which we might stand in need, after so long a voyage. From this frigate we obtained the first information of the Neva, which about a week before had sailed under convoy of an English cutter from Portsmouth for Cronstadt. At six o'clock in the evening we discovered the coast of Norway at the distance of eighteen miles. All night, and the next morning, the 25th, we lay becalmed; at noon the Naze bore N. W. 17°, and the island of Malo, distinguished by its white tower, N. E. 28°. Our latitude was 57° 42′ 40″ N., the nearest land was about nine miles off. The next day, at eleven o'clock, the Naze bore N. W. 14°; and as its longitude is accurately determined, this gave us the means of ascertaining the error of our timepieces, which in No. 128 was 10′ east. At Hangcliff, by Lord Mulgrave's determination of this cape, we found it 15′ east.

Contrary winds and calms during our voyage through the Sleeve and the Cattegat exhausted our patience, which, with the hourly increasing anxiety to touch some European land in the vicinity of our own country, appeared incapable of any fresh trial. The fair wind failed us every where; nor was it until ten o'clock in the morning of the 2d of August that the Nadeshda came to an anchor in Copenhagen road. The ship was detained for two days off Helsingoer by a contrary wind, where I left her, and proceeded to Copenhagen to attend to the necessary business there, in order that our departure for Cronstadt might be facilitated as much as possible. We were five months and twenty-four days in our passage from China to Copenhagen, during which we spent only four days at anchor at St. Helena, when a very small part of the crew were enabled to go on shore. Notwithstanding this my people were perfectly healthy, and at the time of our arrival at Copenhagen we had not one man on the sick list.

During our stay in Copenhagen road we had the happiness to receive his Royal Highness Prince Ferdinand Frederic, who came on board, during a very stiff breeze, in an open boat, accompanied by his governor Lieutenant Bardenfeldt of the navy, and M. Von Bülow. I received the prince with every mark of honour due to his exalted rank, and was as much delighted with his amiable disposition as with the frankness with which his governor is allowed to treat him. The prince devotes himself to the navy, and for this reason Lieutenant Bardenfeldt, a very skilful navigator, has been appointed his governor, who will not fail to make an excellent seaman of him.

On the 6th of August, at seven in the morning, we left Copenhagen, and after an unusually long passage of thirteen days we reached Cronstadt on the 19th, having been absent three years and twelve days.

During this time the Nadeshda did not lose a single man of her crew*; a very remarkable instance, certainly, in a voyage of this nature and of so long a duration. The preservation of the health of my people was, indeed, an object to which I paid the greatest and most unwearied attention; and my satisfaction in having attained it could only be exceeded by that of having safely brought back to Cronstadt the Nadeshda and those persons who had entrusted themselves to my care, during so long and dangerous a voyage. It is deserving likewise of particular notice, and I mention it with the greatest satisfaction, and the most sincere gratitude, as it proves the skill and attention of the officers of my ship, that the Nadeshda in the whole of the voyage did not lose a mast or yard, nor even an anchor or a cable, notwithstanding we were frequently in a situation that would have warranted their loss, with the exception of a kedge anchor and two cables at Nukahiwa. Two boats were stove-in on the deck during the typhons; and these, with a main-top-gallant-yard, and some parts of the rigging which, from long use, were not to be depended upon, were the only things we had to replace.

* The ambassador's cook alone died at the commencement of the voyage. This man's death might easily have been foreseen, as he was in a deep decline; and it was extremely wrong, considering the state of his health, to bring him upon such a voyage.

THE END.

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Digitized with financial assistance from the
Government of Maharashtra
on 23 January, 2019